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ABSTRACT

Nine documents report on activities of Project RETAP (Regular Education Teachers and Principals), an inservice training program which focuses on the development of teacher competencies necessary for the successful integration of the mildly handicapped child. The ultimate goal of the project is the assimilation and overt application of a variety of psychoeducational techniques and curricular approaches, which would provide a supportive learning environment for the exceptional child. "Assessing the Impact of an Intensive Inservice Training Model on Regular Teachers and Mainstreamed Students" is a research report on the effectiveness of Project RETAP in terms of affective and cognitive student outcomes and attitudinal and behavioral teacher outcomes. Findings from data on 27 kindergarten through sixth grade regular classroom teachers show that teachers receiving comprehensive training were able to bring about positive growth for mainstreamed students while simultaneously accomplishing similar gains for all their students. Seventy competencies important for teaching special needs students are identified in "Identifying Effective Teaching Behaviors for Mainstreaming." The instruments used to obtain the 70 variables are explained and samples are offered in "Instrumentation for Data Collection." It is noted that from classroom observation instruments, teacher daily record instruments, teacher self report instruments, and interview instruments, variables were identified and conceptualized within a framework of seven categories: classroom management, questioning style, academic learning time, individualization, teaching style, classroom climate, and attitudinal variables. Results of two more studies are reported in "A Comparison of Academic Learning Time (ALT) for Mainstreamed, Low, Average, and High Ability Students" and "Identifying Teachers Effective with Special Needs Students in the Regular Classroom Setting." Another document contains "Descriptive Tables for Specified Teaching Behaviors of Selected Effective Teachers." Two additional research reports are included which are entitled "Data Summary for the Identified Effective Teaching Behaviors for Mainstreaming" and "Effective Teaching Behaviors for Mainstreaming--A Descriptive Teacher Profile." A final performance report is offered for the validation phase of Project RETAP. Tables with statistical data are

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RESEARCH REPORT

Training Teachers to Apply Teaching Behaviors which Provide for the Successful Integration of the Mildly Handicapped

by

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Janet M. Vacca

BEH SPECIAL PROJECT

Identifying Effective Teaching Behaviors for Mainstreaming

Rhode Island College
Department of
Special Education

EC150309

ASSESSING THE IMPACT
OF AN INTENSIVE INSERVICE TRAINING MODEL
ON REGULAR TEACHERS AND MAINSTREAMED STUDENTS

Barbara Larrivee

Teacher Education and Special Education, in press

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BACKGROUND

The indispensable professional who will carry the primary responsibility for mainstreaming is the regular classroom teacher. While mainstreaming may be imposed by binding laws, the manner in which the regular classroom teacher responds to the needs of the special child may be a far more potent variable in ultimately determining the success of mainstreaming than any administrative or organizational structure.

In accordance with its advocacy role in support of adequate training for personnel serving the handicapped, the Bureau of Education for the Handicapped (BEH) provides funds for the re-training of regular educators to facilitate the mainstreaming process. The project to be described in this paper was funded as a regular education inservice training project for the three-year period from 1975 to 1978.

Overview

Project RETAP (Regular Education Teachers and Principals) was an inservice training program for regular teachers and principals which had as its primary focus the development of teacher competencies necessary for the successful integration of the mildly handicapped child. The ultimate goal of the Project was the assimilation and overt application of a variety of psycho-educational techniques, as well as curricular approaches, which would provide a supportive learning environment for the exceptional child.

Operational Plan

The Project accepted five schools to participate each year. The format for the Project required the participation of the building principal and two regular education teachers from each school. Principals were responsible for choosing participant teachers from their buildings. The operational plan for the Project called for the participants to conduct a workshop for the staff in their building on a monthly basis. The material covered during the course of the year was adapted into a workshop format and presented by the three-member teams to their regular education peers.

Inservice Training Content

Training began with an intensive six-seek summer workshop which met daily for four-hour sessions. During the school year, participants took part in weekly inservice sessions held at their individual schools designed to provide them with the consultation and support necessary for implementation of appropriate educational and behavioral strategies. These sessions occurred before and after school and during free periods and were accompanied by both classroom demonstration and observation by the teacher trainer.

The training activities involved three levels. The first level was general exposure to special education, including categorical definitions, characteristics of children with special needs, and background and rationale for mainstreaming. A second level of the teacher training was concerned with management of the total classroom and involved assessing and modifying teaching style and classroom management practices, as well as accommodations for individualizing instruction. The final training objective was to develop competencies in informal diagnostic assessment and subsequent appropriate instructional strategies. To facilitate this phase of the training process, a target group of children was selected in each classroom. Using a variety of assessment instruments, those children were identified whose academic, social, and behavioral needs required specific intervention. Weekly training sessions during the school year dealt in particular with targeted students and concerns related to meeting their individual needs.

Activities utilized for training were specifically planned to allow for extensive hands-on experience in order to maximize participant involvement during training sessions. The format for the training included various sensitizing experiences, simulation activities, games, audio-visual presentations, problem solving exercises, task sheets, case studies, and planning sessions.

At the onset of the summer workshop, Project participants completed a needs assessment to ascertain training needs. Based on this information, priority training topics were determined for the group as well as for individual schools, teachers, and principals. Subsequent training sessions addressed the identified topics of concern. The needs assessment data reflected a wide range of differences among individual training priorities. A prioritizing of the areas identified by the participants revealed four topics of general concern: (1) Behavior management; (2) self diagnosis of teaching behaviors and styles; (3) building independent learning skills; and (4) diagnosis and remediation of reading problems. Since behavior management techniques were of prime concern, major emphasis was devoted to this topic. The overall intent was to acquaint the participants with the basic principles and procedures necessary for the development of effective intervention programs for targeted behaviors.

Additionally, much effort was extended in developing and monitoring individual programs for targeted children. Specific programs of intervention covered such areas as extinction and/or reduction of problematic behavior, emotional and social adjustment, and remediation of specific skill deficits. Teachers were assisted by the Project trainer in the implementation of effective strategies, procedures, and curricular.

EVALUATION OF PROJECT'S IMPACT

Introduction

Although the evaluation design was basically consistent across the three-year period, specific changes were made in certain instances when it was considered necessary to enhance the overall quality of the Project's design. For example, during the first year the instrument used to assess attitude toward school utilized a semantic differential technique which required students to respond to pairs of opposite adjectives (i.e., good/bad) on a five-point scale. However, the resulting data was so highly skewed in the positive direction at pre-test administration that post-testing was considered to be inappropriate. Therefore, pre-post data for the school attitude variable is available for only the last two years of the Project. Also, the Cooper-Smith Inventory was initially used to provide a measure of self-concept. The format used required students to indicate whether or not a statement was "like" or "not like" them by marking the appropriate "face" provided. In this case, the lie scores were so high on the pre-test administration that interpretation was rendered meaningless.

Evaluation Design

The effectiveness of the RETAP inservice training program for regular educators dealing with special needs children was assessed primarily in terms of affective and cognitive student outcomes and attitudinal and behavioral teacher outcomes. The evaluation design was principally concerned with determing the impact of the training in terms of the degree to which: (1) Project teachers would demonstrate a pattern of behavior more appropriate for meeting the needs of mildly handicapped learners; and (2) targeted children would benefit as a result of the specific intervention strategies employed by their teachers.

Instrumentation

Teacher Assessment Instruments

The classroom observation instrument used was the Learning Environment Dimensions Index (LEDI). The LEDI was used to assess both the amount of teacher-directiveness and the degree of learner support provided by the teacher. It consists of fifteen categories of verbal behavior. The focus of the instrument is to record the teacher's verbal behavior in terms of the intended effect on the student or group. Since overall climate for learning is a group phenomenon, observations are made of students collectively.

The learner support dimension, often referred to as teacher warmth, is operationally defined in terms of the tendency of the teacher to be approving, provide emotional support, encourage, reassure and commend, express considerable understanding, and accept the feelings of students. The directive dimension is defined at one end with the teacher as a dominant, controlling figure, providing overall organization, issuing directives, lecturing, providing factual information, and asking factual recall questions. At the student-centered extreme, the dimension represents the tendency to involve students in discussion and decision-making, challenge students by asking open-ended questions which stimulate thinking, and facilitate student problem-solving, self-direction, and initiation.

A questionnaire entitled "A Survey of Teacher's Opinions Relative to Mainstreaming Special Needs Children" was designed to address teacher attitude toward the concept of mainstreaming, its benefits and relative merits compared to special class placement for the handicapped. The instrument contained 41 statements requiring the respondents to indicate their degree of agreement.

Student Assessment Instruments

The California Achievement Test (CAT) (Reading, Math, and Language Subtests) was given to pupils at the appropriate levels on a pre-post basis. In addition, the Short Form Test of Academic Aptitude (SFTAA) was given in the Fall as a measure of ability (IQ) and was used to generate expected scores on the CAT. This, in turn, generated discrepancy of achievement scores for pupils in participating classrooms for selection purposes.

The Behavior Rating Scale (adapted from the Devereux Elementary School Behavior Rating Scale) was used to determine an individual's behavioral standing within the class based on teacher judgment. Students were rated on 47 items pertaining to their overall classroom adjustment. Twenty-six items are rated on a 5-point scale dealing with frequency of occurrence (Very frequently to Never); the remaining items are rated on a 7-point scale indicating the degree to which the behavior is true of a given child (Extremely to Not at all). Additionally, clusters of approximately four items each yield 11 interpretive factor scores. For analysis purposes a summative score was used. The potential range of scores was 47 to 277.

The Survey of School Attitude (SSA) was also administered. This standardized instrument requires students to indicate whether they like, dislike, or are neutral toward different activities in four academic areas. The sum of a student's responses to a sample of activities typically encountered in a curricular area is considered an indication of the student's overall affective reaction to that area. For the purpose of this evaluation, responses to all four areas were merged to provide a single average score indicative of general attitude toward school. Scores could potentially range from 0 to 30.

The Perception of Social Closeness Scale (PSCS) was used to provide an indication of the degree of peer acceptance for an individual student within a given classroom. Each student was asked to make a judgment for every student in his or her class relative to the level of acceptance they felt toward each of their classmates. All responses for an individual child were considered collectively to arrive at a score. The range of scores was 0.70 to 2.43. An individual's Self Rating on this scale was used independently as a measure of perception of self. In responding to their own name on the sociogram, students were directed to choose the response they thought the majority of their classmates would select for them. The responses ranged from "would like to invite to my home" which was the most positive response (scored as a "1") to "would like to leave me alone" as the most negative response (scored as a "5").

Selection of Target Population

As mentioned earlier, a target group of children within each classroom was identified based on a compilation of the aptitude, academic, social, attitudinal, and behavioral data. The CAT Achievement scores and the SFTAA aptitude score on an individual were jointly considered to obtain a discrepancy score representing the difference between an individual's actual achievement and his or her expected achievement based on general ability. The comparison of the CAT scores with the SFTAA score is made possible because of their joint standardization. The SFTAA score was used to produce an anticipated achievement grade equivalent score using age, grade in school, sex, and SFTAA raw score as predictors. Once this score was computed, it was subtracted from the actual grade equivalency score, obtained on a given subtest of the CAT, to produce the desired discrepancy score.

After all students in the participating classrooms had completed the testing, the actual range of scores obtained on the behavioral, social, and attitudinal instruments was determined for each test based on the total results for all the classrooms considered collectively. The actual range was used to calculate the thirtieth percentile cut-off score. To further specify the severity of a student's discrepancy, cut-off scores were also determined for the twentieth and tenth percentile. For the reading, math, and language discrepancy scores, a cut-off point of five or more months discrepancy was used for selection purposes.

In order to provide for a uniform procedure for selection across all classrooms, a point system was devised which was based on the severity of the discrepancy. Figure 1 illustrates the manner in which points were assigned to individual students. After the point system had been applied to each classroom of students, those four students receiving the highest "score" were designated as the target children within an individual classroom. (In a few instances the number of target children selected deviated slightly, i.e., three or five because of the number of children receiving high scores.)

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ANALYSIS AND RESULTS

Data Source

Over the three-year period, 27 kindergarten through sixth grade regular classroom teachers participated for the duration of a school year. Since little data was available for the kindergarten classrooms, the data source includes 25 teachers, 17 female and eight male, from 15 schools within eight communities inclusive of urban, suburban, and rural areas. Eight of the schools served low socio-economic status students and were eligible for Title I funds. The classroom size ranged from 20 to 38, with an average of 26 students.

Description of Target Population

Descriptive data for the target and non-target groups **are provided** in Table 1. As can be readily seen, the most common characteristic of

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targeted students was their academic discrepancy. Of the total 101 students in the target group, 16 were not considered in the one-year discrepant category due either to grade one status or missing data. Likewise, grade two students were also omitted from inclusion in the two-year discrepant category. Thus, change in eligibility by category explains the non-additive nature of the percents reported. Considering only students above grade two, 40% of the target group were two or more years discrepant in at least one subject area according to pre-test scores. Eliminating all occasions where an individual student could have been included in more than one category (i.e., a student could be one year discrepant in one subject and two or more years discrepant in one or two other subjects), a total of 71% of all targeted students were discrepant one or more years in at least one subject area. An additional 14 students, or 16%, of the targeted students were achieving one year or more below grade level in at least one subject area. Five students (6%) were targeted based solely on discrepancy in either or both behavior and social status. The remaining six target students (7%) were selected based on teacher **judgment** of need for specific intervention. Thus, 93% of the targeted students exhibited discrepancy in either (or a combination of) academic achievement, behavioral adjustment, or social status. Twenty-three (38%) of the academically discrepant targeted students also exhibited discrepancies in the behavioral and social domains. Males were favored nearly three to one in the total target group (73 vs 28).

Considering the characteristic deficits of the children identified as target, they appear to be representative of a mildly handicapped population, i.e., those earmarked for mainstreaming. Although only a few of the students in the target group had actually been returned to the regular classroom from special classes, many of the targeted students would most likely have been formerly identified as handicapped based on their discrepant profiles had they been in school prior to the recent movement toward mainstreaming mildly handicapped students. Referring to recent definitions of handicapping conditions, the targeted youngsters are most characteristic of the specific learning disabled and educable mentally retarded populations (i.e., 31% with I.Q.s below 90; 40% with average I.Q.s but functioning at least two years below expectancy). It should also be mentioned that according to USOE, BEH statistics (1975), 88% of learning disabled students are reported as unidentified by local special education agencies.

Student Outcomes

In order to determine if the **Project** objectives were met, the appropriate analysis was to compare the gain scores across the target and the non-target groups. Since the target group and the non-target group were strictly not comparable, a discrepant group from the non-target group comparable to the target group was formed for comparison purposes. Futhermore, formation of such a group would facilitate the determination of carry-over effects to students who were potentially target students but were not assigned to the target group. In order to determine non-target but discrepant students, a frequency score distribution for each of the seven variables was obtained for the target group. In general, students scoring below the 30th percentile in the non-target group on each of the variables compared well with the students in the target group. Thus, three groups were formed, the target group, the discrepant group (consisting of students in the non-target group who might have been assigned to the target group) and the non-target group. The discrepant group varied for each of the seven variables considered.

It should be mentioned that due to the lack of control of the type of student to be found in the classrooms of the participating teachers, the range of severity of targeted students varied considerable from class to class. In some classrooms there were several students with very discrepant profiles who were not selected as target students since there were other students with more discrepant profiles. Conversely, in other classrooms,the targeted students were only mildly discrepant. An examination of Table 1 indicates that approximately 20% of the non-target group were academically discrepant; an equal number were behaviorally or socially discrepant. These figures lend further support for the evaluation design in which the impact of the training on non-target discrepant students was considered.

Although grade equivalent scores were used initially to determine discrepancy scores, they were not appropriate for analysis. The typical number of students in the target group was 4, with missing observations frequently occurring. Since this number was considered too small to permit meaningful comparisons of gain scores over the groups, it was necessary to combine the grades to compare the gains of the three groups, and to combine over years to compare the gains of the three groups for each of the six grades. In either case, the use of grade equivalent scores was not appropriate due to the nonequivalence of tests across grades. Furthermore, in order to minimize carry-over effects, different forms of the CAT were administered during the pre-testing and the post-testing phases. These strictly non-equivalent forms further rendered the grade equivalent scores inappropriate for analysis. The Achievement Development Scale Scores (ADSS), which are rescalings of the raw scores and the grade equivalent scores, are invariant across different forms of the CAT and also across grades and, thus, are ideally suited for the comparison of gains across groups. Hence, the grade equivalent scores were transformed to ADSS and these scores were employed in the analysis. For behavior rating, self-rating of social acceptance, and school attitude, raw scores were used for analysis purposes. For peer acceptance, a score was derived by applying differential weights to the response options.

Statistical analysis of the data involved carrying out univariate analysis of variance for each of the seven variables. Univariate analysis of variance as opposed to multivariate analysis of variance was deemed appropriate due to the great number of missing observations for each variable. Deletion of missing observations across all seven variables simultaneously would have greatly reduced the number of available observations, rendering the multivariate analysis less powerful than the univariate analyses.

Although numerous comparisons were examined, both by grade collapsing across years as well as by year collapsing across grades, only summary data are provided here. However, several trends in the data warrant mention. While no by-grade patterns were apparent in math and language gains, in reading target students tended to have the greatest gains in the lower grades, while discrepant students had the greatest gains in the upper grades. In terms of behavior ratings, in five of the six grades (all except grade two) discrepant students showed the greatest gains, with the differences being significant at three grade levels. Targeted students improved their sociogram scores more than discrepant or non-target students in four (2,4,5,6) of the six grades.

Mean gains collapsed across grade and years for each of the seven variables for the three groups considered are shown in Table 2. In terms

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of academic gains, discrepant students showed gains in excess of those made by target and non-target students in both reading and language. Although the gains were not significantly different from those of the other two groups, these results indicate a carry-over effect. That is,the teaching strategies implemented by the participating teachers to help target students also positively effected less discrepant students as well. In math,non-target students made significantly greater gains than both target and discrepant students. Nonetheless, the gains made by the targeted and discrepant groups were appreciable. These results indicate that the teachers were less successful with targeted youngsters in increasing their achievement in math. This may in part be attributed to a more concentrated training emphasis in remedial strategies relative to reading and language arts in response to expressed teacher-prioritized need for training in these areas. Additionally, teachers more readily implemented individualized instructional strategies in these curricular areas since they were already providing small group instruction, whereas in math,instruction was primarily large group.

In the area of behavioral adjustment, significant carry-over effects were also apparent. While both targeted and discrepant students showed gains in the expected direction, non-target students' maladjustive behavior increased slightly. However, this increase is insignificant in light of the fact that post-test mean scores averaged about 60 for the non-target group, while averaging about 100 for the target group. These results demonstrate that while there was hardly any room for the scores of the students in the non-target group to decrease, there was considerable room for the scores of the students in the target and discrepant groups to decrease and their scores did indeed decrease substantially. The extent of the impact on the behaviorally discrepant group is indicative of the effectiveness of the emphasis in the training on classroom management procedures related to increasing productive learning time.

Peer acceptance ratings changed in the desired direction for all students indicative of a more supportive social environment by the end of the school year. In terms of students' self-ratings on the sociogram, only the target and non-target students felt more accepted by their peers. Non-target students with initial low self-ratings (i.e., the discrepant group) felt slightly less accepted by their peers. These results may indicate that the intervention programs for targeted students geared to increasing their self-perception were of a more personal, individualistic nature and thus did not serve to enhance the self-perceptions of other students for whom systematic procedures were not implemented. Finally, school attitudes were somewhat more positive by the end of the year for all three groups, with targeted students having the greatest gains.

Teacher Outcomes

Teachers who participated in the Project were expected to implement management and instructional procedures necessary to better accommodate the special needs learner within the regular classroom environment. Of course, the ultimate measure of the teachers' success in accomplishing this goal is in terms of pupil performance. The data reported in the previous section indicate that positive change did occur for targeted as well as discrepant students as a result of the intervention strategies implemented by their teachers.

Further evidence of the success of programs intended to promote positive change for targeted students, especially in the behavioral domain, is available from a review of the anecdotal records kept throughout the year. Teachers completed an individual "Behavioral Anecdotal Record" for each targeted child. While formal summary of the data is not meaningful due to the personal nature of each intervention program, the results of specific behavior modification programs indicate a high degree of success in eliminating or decreasing behavior which interferred with a student's learning potential. Other programs were successful in increasing productive learner behavior. Teachers also completed a "Behavior Management Checklist" for each target behavior. This form was developed to facilitate the implementation of a systematic procedure for intervention.

Teacher Behaviors

In order to determine the degree to which Project teachers would make use of behaviors considered appropriate to promote a more productive climate for accommodating the mildly handicapped learner, classroom observations were conducted utilizing the LEDI, a low-inference classroom observation instrument. The purpose of the LEDI was to assess the degree to which teachers would engage in student-centered and learner-supportive teaching behaviors.

Due to the non-uniform criteria utilized by principals to select participating teachers across schools, great variability existed among the teachers on such dimensions as amount of teaching experience, coursework in special education, previous exposure to mildly handicapped students in their classrooms, etc. Therefore, since entry level of the participating teachers could not be assumed comparable, coupled with the small number of teachers, analysis of the observational data collected was problematic. Additionally, due to the extent of initial variability, on-site training was, in part, a function of the individual teacher's needs, both as stated by the teacher and as observed by the teacher trainer. Furthermore, the needs of a teacher's targeted students also played a part in defining the nature of the training an individual teacher received. It should be clear at this point that the observational data cannot be readily combined across teachers and, therefore, no summary table of the results is included.

Due to the Project timelines and previous changes in personnel, the final year of the Project afforded the first opportunity to observe teachers before the intensive summer workshop. Since participants were selected in May, classroom observations could be conducted prior to training. Observations were conducted again midway through the Project and finally during the last month. Therefore, data are available at three points in time and can be used to make comparisons over time.

The LEDI provides a frequency count for fifteen types of verbal behavior. Thus, collapsing across time, 45 "scores" were provided for each teacher. Classroom observations were approximately 30 minutes in length and occurred during academic lessons.

Review of this wealth of data can be summarized in the following generalizations:

(1) The greatest change in teaching behaviors occurred between Time 1 and Time 2, that is, after the intensive summer workshop.

(2) Project teachers exhibited continued greater use of student-centered as opposed to teacher-directive behaviors across time. Specifically, they made greater use of behaviors which stimulated thinking and facilitated student problem-solving, self-direction, and initiation.

(3) Project teachers increased their use of positive reinforcement over neutral reactions and use of punishment.

Teacher Attitudes

In order to assess the impact of the inservice training program on teacher's attitude toward mainstreaming, the attitudes of three groups of regular education teachers were compared: (1) The participating teachers who received intensive inservice training over a one-year period; (2) the teachers who attended the monthly inservice training sessions during the school year; and (3) a random sample of teachers.

The random sample of teachers used for comparison purposes consisted of a sample of nearly 1000 regular classroom teachers in kindergarten through grade 12, representing urban, suburban and rural areas of New England. The sample was selected using a multi-stage random sampling process. The six New England states were employed as the stratification variable; within these states, schools, serving as clusters, were selected randomly. The final stage of sampling was the selection of teachers within schools.

The scale employed to assess teacher attitude was constructed by the Likert method of summated ratings. The reliability of the scale, as determined by the Spearman-Brown split-half reliability coefficient, was .92. Mean attitude scores were obtained for the three groups of teachers considered and an analysis of variance was conducted to determine the effect of level of inservice training on teacher attitude. Table 3 presents the results of the

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analysis of variance.

Examination of Table 3 indicates a significant treatment effect (p. $<$.003). While the mean attitude score for teachers receiving intensive training was considerably greater (more positive) than for either of the other two groups of teachers, the mean attitude score for those attending monthly sessions was slightly less positive than that for the untrained sample. Contrasts were considered to determine which group differences led to rejection of the null hypothesis (no group differences). As was expected, the significant differences were found to be between the intensive training group and the random sample of teachers and between intensively trained teachers and moderately trained teachers. These findings strongly indicate that teachers exposed to the intensive inservice training supplemented by continuous support through consultation, developed a positive attitude toward mainstreaming in general and toward their self-perceptions of ability to teach special needs children.

DISCUSSION

The research design employed to study the impact of the training Project can at best be described as a quasi-experimental design. Hence, such sources as maturation, regression, interaction of selection and maturation, to name a few, may operate as plausible rival hypotheses when attempting to attribute the changes or gains that accrued to the effect of the training received by Project participants. Since students with extreme scores were chosen to be in the target group, regression may serve as a possible rival hypothesis. However, the students were chosen with respect to their discrepancy between observed and anticipated scores; hence, the regression phenomenon can be expected to exist only to a small extent. The effects of selection and the interaction of it with other variables can also be expected to be minimal since all the students in the class, target, discrepant, and non-target, were exposed to the treatment simultaneously.

Any inservice effort intended to enhance teaching skills by providing teachers with specific strategies and techniques appropriate for managing special needs students within the regular classroom environment should serve to enable teachers to accommodate a wider range of individual differences among students. The results reported here provide supporting data that teachers receiving comprehensive training were able to bring about positive growth for mainstreamed students while simultaneously accomplishing similar gains for all their students. This finding does not lend support to the commonly accepted notion that the extra time required to effectively educate mainstreamed students will be to the detriment of their regular classroom peers. Indeed, effective delivery of inservice teacher training will necessarily improve the quality of education for all students.

Several components incorporated into the training model undoubtedly had a positive affect on the Project's accomplishments. One such factor was the interactive involvement of the school principal with the participating teachers. The focal role of the principal as a catalyst for change has been well documented. Participation was viewed as a team effort linked directly to a general effort of the school. The three-member teams provided mutual support and assistance to one another and assumed a leadership role in the planning and delivery of the in-service training. A second key component was on going needs assessment in order to ensure responsiveness to their changing needs. An equally important element of the model involved offering teachers training which was relevant to their daily needs and concerns. Focusing on actual problems which they were encountering on a day-to-day basis enabled the teachers to deal more effectively with their special needs students. Additionally, on-site consultation with the trainer on a regularly-scheduled basis afforded an opportunity for immediate feedback and frequent evaluation of strategies being implemented.

In summary, in excess of 100 special needs children were identified and subsequently became the recipients of specific intervention programs tailored to their individual needs. The training Project was successful in providing its participants with specific training and assistance which enabled them to create a learning environment which met the psychological as well as educational needs of their mildly handicapped students. The data summarized here reflect the positive impact that the intensive training model had not only in effecting change in teaching behaviors but in pupil performance as well. The close alignment of the training to teacher-perceived needs, the extensive opportunity for immediate implementation of intervention strategies with targeted youngsters, and the continuous feedback and supportive assistance provided by the trainer no doubt contributed significantly to the success of the inservice training.

Figure 1

Target Selection Criteria

Criterion	Assigned Points
Reading, Math, and Language Discrepancy	
.5 - .9 Yrs. Discrepant	1
1.0 - 1.5 Yrs. Discrepant	2
1.6 or more Yrs. Discrepant	3
Behavior, Social and Attitude Discrepancy	
Bottom 30th Percentile	1
Bottom 20th Percentile	2
Bottom 10th Percentile	3

Table 1

Number and Percent[a] of Target & Non-Target Students Discrepant by Variable

Academic Discrepancy

Group	IQ Below 90			1.0 to 1.9 Years Discrepant[b]					2.0 & Above Years Discrepant[c]				
					1 Area		2+ Areas			1 Area		2+ Areas	
	n	#	%	n	#	%	#	%	n	#	%	#	%
Target	70	22	31	85	24	28	20	24	72	12	16	17	24
Non-Target	457	73	16	510	52	10	36	7	443	26	6	11	2

Other Discrepancy

	Behavior Rating (below 20th %ile)			Social Status (below 20th %ile)			Self-Rating (rating of "4" or "5")			School Attitude (below 20th %ile)		
	n	#	%	n	#	%	n	#	%	n	#	%
Target	101	11	11	101	18	18	85	28	33	60	11	18
Non-Target	642	10	2	642	10	2	539	89	17	355	60	17

[a] The denominator used to calculate the percent varies considerably due to missing data.

[b] Grade 1 students omitted.

[c] Grade 1 and 2 students omitted.

Table 2

Comparison of Mean Gains by Group

	Group				
Variable	Target	Discrepant	Non-Target	Standard Deviation	F Value
Reading	29.60 (62)	33.50 (67)	23.80 (139)	38.83	1.53
Math	40.81 (54)	35.09 (65)	49.04 (152)	62.17	4.50*
Language	55.59 (54)	59.23 (79)	50.59 (138)	73.52	0.36
Behavior Ratings[a]	-4.47 (81)	-15.40 (115)	8.74 (294)	76.74	4.33*
Peer Ratings[a] (Sociogram)	-.11 (80)	-.08 (138)	-.11 (267)	.89	2.22
Self-Ratings[a] (Sociogram)	-.11 (40)	.33 (79)	-.73 (118)	1.67	4.77*
School Attitude	3.42 (65)	2.59 (95)	2.83 (217)	11.67	0.10

[a] A negative gain is indicative of change in the desired direction.

* $p < .01$

Table 3

ANOVA Table of the Attitude Score
by Level of Inservice Training

	ss	df	mss	F
Between Groups	4462.64	2	2231.32	5.57*
Within Groups	427663.26	1068	400.43	
Total	432125.90	1070		

*p < .003

IDENTIFYING EFFECTIVE TEACHING BEHAVIORS FOR MAINSTREAMING

Barbara Larrivee Janet M. Vacca

Paper presented at:

National Association of School Psychologists
Annual Convention
Washington, D.C.

April 1980

EC 150 309

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With the enactment of P.L. 94-142 regular educators are being called on to meet new instructional and management challenges. State and local educational agencies have begun the process of retraining regular education teachers. However, no real body of knowledge exists to aid educators in selecting appropriate inservice training. Currently a variety of commercial materials are available ranging from comprehensive programs designed as total curriculums to individual modules and workshops concerned with a particular skill, attitude, or competency deemed relevant by their respective author. Yet it has not been established which skills are important for regular educators to master in order to effectively educate special needs children.

To date the requisite research has not been conducted which would clearly identify these essential teaching skills. In order to address this concern, the Bureau of Education for the Handicapped (BEH) has funded a regular education inservice training project which will attempt to validate teaching behaviors which effect positive change in the special needs child's performance in the regular classroom and subsequently match inservice training to the identified behaviors.

The operational plan for the project called initially for the selection of regular classroom teachers who had previously demonstrated their effectiveness with special needs students functioning in the regular classroom setting. Teachers were selected based on the actual performance of special needs students in their classrooms. Students were assessed on a pre-post basis on academic, behavioral, social, and attitudinal variables. A series of criteria were established considering gains made by the special needs students as well as gains made by the class at large for selection purposes. From an original pool of 33 elementary teachers, twelve teachers were identified as effective. Subsequently, these twelve teachers participated in the initial validation phase of the project. Extensive classroom observations were conducted in these classrooms in an effort to isolate characteristic teaching behaviors for the effective teachers.

Following a comprehensive review process, over 70 variables were identified as worthy of consideration. These variables represented those that had been found to consistently relate to student performance outcomes based on previous process-product research findings. The specific variables chosen for inclusion are shown in Figure 1. The variables have been conceptualized within the framework of seven general categories: (1) Classroom Management; (2) Questioning Style; (3) Academic Learning Time; (4) Individualization; (5) Teaching Style; (6) Classroom Climate; and (7) Attitudinal Variables. Instrumentation was designed specifically for the project in order to provide data on each of the 74 variables being considered. Four modes of data collection were implemented: (1) Direct classroom observations; (2) teacher daily records; (3) teacher self-report; and (4) teacher and student interviews. Sixteen instruments were developed to provide the data necessary for assessing all of the selected variables. Figure 2 includes a list of all instruments and the corresponding data collection mode.

Data were collected during the second-half of the school year - February to June, 1979. A minimum of 20 classroom observations were conducted in each of the 12 classrooms. Additionally, the teachers completed daily record forms providing information on their selected mainstreamed student as well as a sample of students of varying ability levels.

Extensive data analysis was performed in order to determine the degree of variability across teachers for each variable under consideration.

Since only 12 teachers were selected as effective, the data analysis was primarily based on means, ranges, and standard deviations. For each variable the following were considered: (1) actual range of scores within a 20% range; (2) position of scores at either the high or low end of the continuum; and (3) a minimum of 10 of the 12 teachers within the range. Ultimately forty-two of the teaching behaviors were determined to be characteristic of teachers effective with mainstreamed students. These behaviors are designated in Figure 1 by one asterick (*) indicating that the effective teachers engaged in a high amount of the behavior and two astericks (**) indicating a low amount of the behavior to be characteristic of the effective teachers. Statements summarizing the results are offered for each category of behavior in Figure 3.

Currently the identified teaching behaviors have been organized into a series of training modules to be offered to regular education teachers. Additionally, a "Teacher Profile" has been developed showing the critical ranges for each behavior to be used for teacher assessment purposes.

Figure 1
Teaching Variables[a]

QUESTIONING STYLE

Volunteer Respondent (QP)
Student Selection (QP)
Narrow Questions (QP)
*Positive Feedback (QP)
*Sustaining Feedback (QP)

*Content Questions (QP)
*Low-order Questions (QP)
*Correct Student Response (QP)
**Criticism of Response (QP)

CLASSROOM CLIMATE

Movement-Free vs. Restricted (SOI)
Affective Environment (TOI)
Physical Environment (CM)
Noise Level Appropriateness (SI)
Non Permissiveness (ORS)
Controlling Behavior (TOI)
Acceptance of Feelings (ORS)

Awareness of Feelings (ORS)
*Warmth (SI)
*Teacher Responsiveness (ORS)
*Teacher Fairness (ORS)
*Performance Expectation (ORS)
*Relationship with Students (ORS)
*Initiation of Student Contact (ORS)

INDIVIDUALIZATION

Time in Small Groups (SOI)
Time in Large Groups (SOI)
Teacher Time with Individuals (SOI)
Individualization of Work (SOI)
Grouping for Math (BI)

Checking Student Work (ORS)
*Ad Hoc Grouping (CM)
*Instructional Appropriateness (ORS)
*Grouping for Reading (BI)
*Attention to Individual Needs (SI & CM)

CLASSROOM MANAGEMENT

Supportive Response to Conduct Problems (ISI)
Supportive Response to High Severity Behavior (ISI)
Teacher Consistency (ORS)
Use of Praise (ORS)
*Supportive Response to Learning Problems (ISI)
*Supportive Response to Personality Problems (ISI)
*Supportive Response to Low Ability Students (ISI)
*Effective Use of Time (ORS)

*Total Supportive Response (ISI)
*Task Engagement Feedback (ISR & ISI)
*Variety of Interventions (ISI)
**Need for Discipline (ORS)
**Total Punitive Response (ISR)
**Punitive Intervention (ISR)
**Incidence of Intervention (ISR)

ACADEMIC LEARNING TIME

Allotted Time (DR)
Teacher Directed Time (ALT)
Student Directed Time (ALT)
*Easy Difficulty Level (ALT)
*Engagement Rate (ALT)
*Academic Learning Time (ALT & DR)
**Special Individual Work Time (DR)

**Unassigned Time (DR)
**Teacher Transition Time (ALT)
**Student Transition Time (ALT)
**Waiting-for-Help Time (ALT)
**Off-Task Time (ALT)
**Hard Difficulty Level (ALT)

TEACHING STYLE

Assignment of Tasks (SOI)
Assignment of Homework (CM)
*Teacher Flexibility (TOI)
*Lesson Structure (CM)

*Clarity (SI & ORS)
*Academic Feedback (CM)
*Active Involvement (SOI & ORS)

OPINION AND ATTITUDINAL VARIABLES

Situational Job Satisfaction (JSQ & EDS)
Educational Philosophy (TOI)
*Positive Attitude Toward Mainstreaming (TQM)

*Professional Job Satisfaction (JSQ & EDS)
*Scope of Professional Responsibility (TOI)
*Teacher Self-Perception of Competence (EDS)

[a] *Initials following each variable indicate the instrument used.*
**High amount characteristic of effective teachers.*
***Low amount characteristic of effective teachers.*

Figure 2

Project Instruments

Instrument	Code	Data Collection Mode	Code
Signs of Individualization	SOI	Classroom Observation	O
Questioning Patterns	QP	Classroom Observation	O
Academic Learning Time	ALT	Classroom Observation	O
Intervention Strategy Record	ISR	Classroom Observation	O
Observer Rating Scale	ORS	Classroom Observation	O
Daily Record-Reading, Math	DR	Teacher Record	R
Intervention Strategy Inventory	ISI	Teacher Self-Report	S
Classroom Management Questionnaire	CM	Teacher Self-Report	S
Educational Dimension Survey	EDS	Teacher Self Report	S
Job Satisfaction Questionnaire	JSQ	Teacher Self Report	S
Teacher Opinion Inventory	TOI	Teacher Self Report	S
Teacher Questionnaire on Mainstreaming	TQM	Teacher Self Report	S
Philosophy of Education	PE	Teacher Self Report	S
Background Information	BI	Teacher Interview	I
Reading Program Implementation	RPI	Teacher Interview	I
Math Program Implementation	MPI	Teacher Interview	I
Student Interview	SI	Student Interview	I

Figure 3

Summary of Findings for Effective Teachers

I. Questioning Patterns

- Teachers asked questions specifically related to content and of low conceptual-order during content lessons (reading and math)

- Their questions were most often answered correctly and they gave positive and/or supportive feedback. Criticism of students' responses was almost never observed.

II. Classroom Climate

- Teachers were highly responsive to students, held high expectations for their students, and were perceived by their students as receptive and friendly.

III. Individualization

- Students were almost always assigned work at their appropriate instructional level.

IV. Classroom Management

- Teachers managed their time efficiently and seldom needed to discipline students.

- Their incidence of use of interventions was low. However, when an intervention was required, teachers used supportive interventions. Punitive interventions were minimal.

- Teachers frequently intervened by providing support for the student in the form of individual assistance, further explanation, encouragement, and affection as opposed to more punitive types of interventions.

V. Academic Learning Time

- Teacher and student transitional (non-instructional) time was minimal as was unassigned time.

- Student engagement rates were high, off-task and waiting for help time occurred infrequently.

VI. Teaching Style

- Teachers made clear presentations of lessons as evidenced by their students reporting that they understood assignments.

- They frequently initiated student contact and were always actively involved with students.

- They placed emphasis on academic feedback to students and frequently gave task engagement feedback to reinforce on-task behavior.

INSTRUMENTATION FOR DATA COLLECTION

Barbara Larrivee

September 1979

EC/50309

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Preface

In 1978, the Rhode Island College Department of Special Education was awarded a three-year grant from the U.S. Office of Education, Bureau of Education for the Handicapped, Division of Personnel Preparation for the purpose of training regular educators. The ultimate goal of this project is to provide inservice training to regular classroom teachers which will promote the use of teaching behaviors which have been demonstrated to positively effect the special needs child's performance in the regular classroom setting. This Special Project has in addition to a training focus, a comprehensive research and development component.

The project entails a three-level validation process. The first phase encompasses the identification of those teaching behaviors characteristic of teachers effective with mainstreamed students. Phase two involves the validation of a training package developed specifically to foster the acquisition of those desired teaching behaviors identified in the initial phase. The final phase is intended to validate that changing teacher behaviors in the desired manner will result in the expected positive performance of the mainstreamed child.

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Introduction

The operational plan for the project called initially for the selection of regular classroom teachers who had previously demonstrated their effectiveness with special needs students functioning in the regular classroom setting. Teachers were selected based on the actual performance of special needs students in their classrooms. Students were assessed on a pre-post basis on academic, behavioral, social, and attitudinal variables. A series of criteria were established considering gains made by targeted students as well as gains made by the class at large for selection purposes. From an original pool of 33 elementary teachers, twelve teachers were identified as effective. Subsequently these twelve teachers participated in the initial validation phase of the project. Extensive classroom observations were conducted in these classrooms in an effort to isolate characteristic teaching behaviors for the effective teachers.

Following a comprehensive review process, over 70 variables were identified as worthy of consideration. These variables represented those that had been found to consistently relate to student performance outcomes based on previous process-product research findings. This document represents the instrumentation utilized in the project to assess the selected teaching behaviors. The specific variables chosen for inclusion are shown in Figure 1. The variables have been conceptualized within the framework of seven general categories: (1) Classroom Management; (2) Questioning Style; (3) Academic Learning Time; (4) Individualization; (5) Teaching Style; (6) Classroom Climate, and (7) Attitudinal Variables. The instruments to follow were designed specifically for the project in order to provide

Figure 1
Teaching Variables[a]

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Volunteer Respondent (QP)
Student Selection (QP)
Narrow Questions (QP)
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Student Transition Time (ALT)
Waiting-for-Help Time (ALT)
Off-Task Time (ALT)
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Professional Job Satisfaction (JSQ & EDS)
Scope of Professional Responsibility (TOI)
Teacher Self-Perception of Competence (EDS)

[a] *Initials following each variable indicate the instrument used.*

data on each of the 74 variables being considered. Four modes of data collection were implemented: (1) Direct classroom observations; (2) teacher daily records; (3) teacher self-report; and (4) teacher and student interviews. Sixteen instruments were developed to provide the data necessary for assessing all of the selected variables. Figure 2 includes a list of all instruments and the corresponding data collection mode.

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Project Instruments

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Philosophy of Education	PE	Teacher Self Report	S
Background Information	BI	Teacher Interview	I
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Math Program Implementation	MPI	Teacher Interview	I
Student Interview	SI	Student Interview	I

CLASSROOM OBSERVATION INSTRUMENTS

OBSERVATION INFORMATION

Cover Page

Teacher Sex ______________________

Grade Level ______________________

Class Size ______________________

Date ______________________

Day of Week ______________________

Time of Day ______________________

Type of Lesson (e.g., subject, content, format)

____

____

____

____

Description of Any Special Needs Students (e.g., number, type)

____

____

____

____

Type of Students in Class (approximate %)

__________ **Low SES**

__________ **Middle SES**

__________ **High SES**

SIGNS OF INDIVIDUALIZATION (SOI)

Coding Guidelines

Purpose:	This instrument is intended to provide an objective assessment of particular aspects of individualizing instruction.
Content:	The SOI is a checklist of observable classroom patterns which consists of indicators of degree of individualization readily assessed in a brief scanning of the classroom. Specifically, the following categories are recorded: (1) grouping patterns; (2) focus of teacher attention; (3) differentiation of activities; (4) number of subgroups; (5) assignment and/or selection of tasks; and (6) movement within the classroom.
Coding Format:	Coding is on a time-sampling basis. The coder observes for a specified period of time and then records the appropriate response option for each of the six categories.
Coding Procedure:	The SOI is organized to be coded six times, at equal intervals, during the period of observation. A 30-minute observation period was used in this project; therefore recordings were made at 5-minute intervals.

SIGNS OF INDIVIDUALIZATION (SOI)

Directions: Circle one response option for all six categories at the specified time interval.

Time:	T_1	T_2	T_3	T_4	T_5	T_6
1. Grouping structure:	C S S & I I	C S S & I I	C S S & I I	C S S & I I	C S S & I I	C S S & I I
2. Number of subgroups:	1 2-3 4-5 6+	1 2-3 4-5 6+	1 2-3 4-5 6+	1 2-3 4-5 6+	1 2-3 4-5 6+	1 2-3 4-5 6+
3. Teacher works with:	C S I N	C S I N	C S I N	C S I N	C S I N	C S I N
4. Differentiation of activities:	C S S & I I	C S S & I I	C S S & I I	C S S & I I	C S S & I I	C S S & I I
5. Assignment of tasks:	A A & S S	A A & S S	A A & S S	A A & S S	A A & S S	A A & S S
6. Movement:	R F	R F	R F	R F	R F	R F

Key: C = Class as a whole
S = Subgroups
S & I = Subgroups and some individuals
I = Individuals
N = Not actively involved with students
A = Assigned
A & S = Assigned and selected
S = Selected
R = Restricted
F = Free

QUESTIONING PATTERN (QP)

Coding Guidelines

Purpose: This instrument is designed to record specific information relative to questioning patterns used by teachers during reading and math instruction.

Content: The instrument specifically addresses four categories: (1) type of question; (2) difficulty and nature of the required response; (3) selection of student to respond; and (4) student response and teacher feedback.

Coding Format: Each question asked by the teacher is coded. The coder circles the appropriate option for each of the four categories per question.

Coding Procedure: The Questioning Pattern is coded for a specific time period during which all questions asked by the teacher are recorded. (A 30-minute observation period was selected for use in this project.)

General Guidelines: (1) If type of question is coded as "content" (C) then all three other categories should be coded. However, if type of question is coded as "organizational" (O) or "non-content" (N) then any one of or all of the other three categories may not apply. When this is the case, the coder leaves blank the categories which do not apply.

(2) Whenever more than one question is addressed consecutively to the same student, subsequent to coding each question, the coder "brackets" the number of questions asked to that student. For example, if questions #14, 15, and 16 were addressed to the same student, those questions should have a bracket in the left-hand margin of the observation form. This procedure preserves additional information relative to use of "sustaining feedback."

QUESTIONING PATTERN (QP)

Category Definitions

I. Type of Question (C, O, N)

(C) Content: concerned with specific content; lesson-oriented

(O) Organizational: concerned with classroom procedures; primarily management-oriented

(N) Non-content: non-lesson content, primarily personal reference

II. Question Content (L-N, L-O, H-N, H-O)

A. Question Difficulty

(L) Low cognitive level: content questions (what? where? when?); drill questions; answer defined in previous information given or read

(H) High cognitive level: questions which stimulate thinking (why? how?); questions requiring students to seek explanations, reason, translate, interpret, and solve problems

B. Response Required

(N) Narrow: response can be predicted; there is a right or wrong answer; response choice is limited

(O) Open: response unpredictable; many responses are acceptable

III. Selection of Student to Respond (B-V, B-N, A-V, A-N, D)

A. When Student is Selected

(B) Before question is asked

(A) After question has been asked

B. Who is Selected

(V) Volunteer

(N) Non-volunteer

(D) Defined: order is pre-defined, i.e., going around circle, up and down rows, etc.; also whole class choral response

IV. Response - Feedback Pattern (C-P, C-N, I-S, I-N, I-C)

A. Student Response

(C) Correct

(I) In-correct (includes partially correct response and no response)

B. Teacher Feedback

(P) Positive (usually in response to C above)

(N) Neutral or no feedback (e.g., going to another student)

(S) Supportive: accepting and clarifying feedback (usually in response to I above)

(C) Criticizing: any response intended to communicate the teacher's disapproval or rejection of the student's response

QUESTIONING PATTERN (QP) OBSERVATION FORM

Directions: Circle one response option for all four categories for each question asked by the teacher.

1. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
2. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
3. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
4. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
5. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
6. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
7. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
8. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
9. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
10. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
11. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
12. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
13. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
14. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
15. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
16. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
17. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
18. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
19. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
20. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
21. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
22. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
23. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
24. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C
25. C O N / L-N L-O H-N H-O / B-V B-N A-V A-N D / C-P C-N I-S I-N I-C

ACADEMIC LEARNING TIME (ALT)

Coding Guidelines

Purpose: This instrument is designed primarily to provide data on student engagement rates during reading and math content. Data on time allotted to subject matter and difficulty level of tasks required of students is also recorded in order to translate the raw data into the variable "ALT". ALT is defined as instructional time during which the student is engaged at an appropriate level of difficulty.

Content: The instrument specifically addresses four categories: (1) content; (2) activity type; (3) student engagement; and (4) difficulty level.

Coding Format: Prior to coding four students are selected for observation. For the purpose of this project, the four students to be observed were carefully selected as a special needs student (i.e., a student with an I.E.P.), and a representative student of low, average, and high ability. Coding is on a continuous basis. The coder observes each student for a defined period of time and then fills in the appropriate box for each of the four categories.

Coding Procedure: The ALT Observation Form is organized to be coded at 15-second intervals for each of the four students observed. Therefore, each student is observed for 15 seconds every minute for the length of the observation. The observation period was 30-60 minutes.

General Guidelines: (1) Coding should represent what the student is observed doing, not necessarily what he/she should be doing. That is, if a student decides to do free-time reading when he/she has not finished assigned seatwork, the appropriate code would be: Reading (RL), Unassigned Activity (UA), and appropriate engagement and difficulty categories.

(2) Within a content block (Reading/Language Arts, Math), if target student is working on non-content-related material, (usually during UA) leave content blank and code other three categories. (This way it will not be counted as time spent working in the content area.)

(3) If a target child is in a content block working on other content (i.e., Social Studies, etc.) leave content blank and code only activity (usually SW). In this case we are not concerned with engagement or difficulty.

(4) When coding the engagement category, the NW code is only for Non-engaged Waiting-for-Help. Any other "wait" time should be coded as NT "Transition."

ACADEMIC LEARNING TIME (ALT)

Observer Category Explanations

I. Content

(R, L) Reading & Language Arts

Includes reading, comprehension, spelling, grammar, writing, handwriting (i.e., any activities occurring during the reading/language arts "block")

(M) Math

II. Classroom Activities (See definitions)

(SW) Seatwork

(QA) Question and Answer

(RD) Recitation, Drill

(DL) Demonstration, Lecture

(D) Discussion

(SI) Special Individual Work

(UA) Unassigned Activities

(O) Other

III. Engagement

(EO) Engaged-Observable Response

Written or oral student response

(EN) Engaged-Non-Observable Response

Covert student response that is generally not observable. This includes most activities where the student is simply thinking, listening to the teacher, or reading silently.

(NT) Not Engaged-Teacher or student transition

Teacher transition refers to periods of change from one activity to another (i.e., lining up, taking seats, quieting down before the next activity) and any other time students are waiting for direction from the teacher.

Student transition refers to the nonacademic interim tasks that are a part of a reading or mathematics task, such as sharpening pencils, turning in and passing out papers, and getting books. This also includes going to the restroom.

(NW) Not Engaged-Waiting for Help

Refers to periods where the student has stopped working on a reading or mathematics task because he/she is waiting for help.

(NO) Not-Engaged-Off-task

Refers to periods where the student is inappropriately disengaged from a reading or mathematics task. This would include socializing, daydreaming, and misbehavior.

IV. Difficulty Level Categories (See further explanation)

(E) Easy

Easy difficulty includes review and practice. Few errors are made and little effort is required of the student.

(M) Medium

Medium difficulty includes any activities between "easy" and "hard".

(H) Hard

Hard includes those activities that the student cannot carry out. Many errors and few correct responses (about what you would expect by chance) occur.

ACADEMIC LEARNING TIME (ALT)

Classroom Activity Category Definitions

1. (SW) Seatwork (Students primarily working without teacher)

    - Activities done individually at seats
    - Students working on assigned tasks
    - Students primarily working alone on such activities as completing a workbook, worksheet, or text assignment; doing silent reading; writing a report; working with supplementary resource books and materials
    - Students using media, such as cassettes, records, filmstrips, or manipulatives or games which have been assigned to them
    - Students interacting with materials rather than the teacher
    - Students generally working at their own pace
    - Students taking written tests

2. (QA) Question and Answer (Teacher-directed)

    - This activity is characterized by a teacher question - student response situation
    - Teacher asks a series of questions which are primarily content, skill, or information oriented
    - Most commonly used during small group (i.e., reading group) work
    - Note: (1) If the question and answer series is very fast-paced with little or no feedback given to individual students, this should be coded as #3 "Drill"

      (2) If the teacher uses students' answers as a springboard for mini-lectures on the material, this should be considered #4 "Lecture"

3. (RD) Recitation, Drill (Teacher-directed)

    - Students reading orally
    - Students orally reviewing previously learned material
    - Use of flash cards

- Students taking teacher-dictated spelling test

- Fast-paced drill exercise, i.e., phonics drill, multiplication facts

4. (DL) Demonstration, Lecture (Teacher-directed)

   - Teacher is presenting information

   - Predominantly verbal presentation of instructional material (usually factual content)

   - Presenting information substantively related to lesson content

   - Introductory comments telling students what they'll be doing

   - Explaining, clarifying material, assignments, directions

5. (D) Discussion (Student-centered)

   - Characterized primarily by students' verbal exchange

   - Teacher may interrupt the dialogue to either allow another student to participate or to focus the dialoque on the intended topic

   - Note: (1) Questions may be asked in this format, but they would tend to be more of the non-content specific, personal reference type, i.e., dealing with feelings or judgments

     (2) Questions in this format would also serve the purpose of stimulating thinking & problem solving, and encouraging others to participate.

6. (SI) Special Individual Work (Includes both teacher-directed activities & seatwork)
   - Extra time spent with individual student(s), i.e., in addition to time spent with class or group

   - Work on special individualized assignment

7. (UA) Unassigned Activities (Primarily students working unsupervised, but on reading or math content)
   - Free-time reading (not assigned)

   - Student unassigned use of media, games or manipulatives

   - Work on projects

   - Other activities done during free-time

8. (O) Other

   - Any activities not specified in categores 1 to 7 that are non-content (reading or math) related.

ACADEMIC LEARNING TIME (ALT) DIFFICULTY LEVEL[a]

Observer Category Explanations

Speed Factor

Speed is only taken into account when the target student is obviously much slower than the rest of the students working on that task. The target student may display a low rate of engagement. The difficulty of the task may be the cause of the low engagement rate. However, the low engagement rate could be the cause of the apparent difficulty of the task. In addition, if the student has rarely been engaged and has completed only a few problems, then the observer may not have ever seen the student actually complete a problem. Hence, the observer may not know whether the student is capable of correctly completing those problems at all, in that the target student could easily have copied his/her answers at times when the observer was not present. Therefore, when a student has been completing a task at an extremely slow speed, but without making errors, then the observer will often have to ask the student to do a problem, so that the observer can determine whether the slow work rate is due to task difficulty or to poor engagement and whether or not the student is really able to produce correct responses.

Codes for Similar Tasks (over time)

The difficulty code for a target student should be the same for all of the problems that are classed together in terms of stimulus, response, and content features. Therefore, if the observer is already aware of the difficulty level of a given kind of problem for a given target student, as judged by previous observations, then the difficulty level of problems of that kind can be coded without further judgments by the observer. Subsequent judgments of difficulty for that class of problems, with respect to the same student, would only become necessary when the passage of substantial time or intervening events (such as a teacher's explanation) cast doubt upon the current validity of the previously determined difficulty level.

Codes for Teacher Directions

Difficulty is always coded based on the specific requirements of the academic task relative to the target student. Therefore, when the student is listening to the teacher give directions or task engagement feedback, the coding of difficulty does not relate to those directions or that feedback per se. Rather, it relates to the content of theacademic task to which the directions or taskengagement feedback apply. However, if the target student is copying directions then the difficulty level coded for that event must apply to the difficulty of copying those directions.

The difficulty level for teacher structuring and directing will often involve several content areas, possibly including several different tasks (such as when the student must complete several activities in sequence). It will not always be possible to isolate a single content category to which the samples moment of observation applies, in that the directions given at a single moment may apply equally to each of several content categories. As discussed previously, the content code in such a case is either reading related or mathematics related. The difficulty code would usually be medium, because the variety of content areas is likely to include tasks of a variety of difficulty levels, with at least a substantial proportion in the medium range. Easy would be coded only if all the tasks involved in the directions are easy for the target student. Similarly, hard is coded only if all the tasks are hard. Therefore, when there is a variety of content areas involved in a single moment (reading or mathematics related), then the appropriate difficulty code will usually be medium.

Difficulty Codes are Based on Overt Responses

Accurate coding of difficulty level will obviously be, itself, an extremely difficult task in some cases. Nevertheless, the difficulty level of reading and mathematics content must always be coded, even when the student is not engaged in the task for which difficulty is coded. Where little information is available for the determination of difficulty level, the observer must make his/her best judgment at the time. Of course, changes in prior coding may be made if subsequent information indicates that the prior coding of difficulty was inaccurate. However, it should be noted that the difficulty level of a task for a student can change over time, so that the observer should be careful not to change prior coding when it is not clear that the prior coding was incorrect for the time period to which it applies.

The judgment of difficulty level must be made on the basis of overt responses by the target student in relationship to the task under observation. Therefore, the coding of difficulty will be less reliable when few or no overt responses are observable. However, it will be possible to isolate, for the purposes of data analysis, those events for which there may have been few or no observable overt responses. These events will be characterized by the learner move coded with them, indicating that the student's engaged response was covert or that the student was not engaged. Therefore, it will be possible to analyze the extent to which the availability of overt student responses is related to the reliability with which difficulty level can be coded.

It should be noted, however, that the observer can often judge difficulty on the basis of overt responses even when no overt response occurs within the particular event being coded. Previously observed overt responses for the same kind of problems can be used to determine difficulty. In addition, the observer can simply ask the target student to perform a problem overtly (read aloud, compute a mathematics problem, etc.). Often it is possible to ask a student to do a problem during the ongoing observation. In other cases, the observer may prefer to wait until a recess or lunch period, ask the student to perform a problem, and thereafter code the difficulty level for previous events involving the same kind of problem.

Guessing

The error rate used to judge difficulty must be evaluated in terms of the probability that a student can guess the answer to a problem without understanding it. This will depend a great deal upon the kind of problem performed by the student. For example, if the student is writing complete sentence answers to reading comprehension questions, then there is very little possibility of his/her correctly guessing the answer. However, if the student is responding to true-false questions for reading comprehension, then there is a fifty percent probability of his/her correctly guessing the answer.

Oral Reading

Error rates and the probability of guessing correctly are not as readily applicable to oral reading as they are to other activities. This is because there are many opportunities for errors, and little apparent chance for guessing (decoding and comprehension skills would have to be applied in order to guess). Furthermore, the passage to be read may be a combination of extremely easy and extremely difficult words. For the purpose of enhancing the reliability of coding between observers, a simple rule will be used here. If the student is *unable to read only one word (or none) per paragraph*, then the passage will be coded as *easy* for that student. If the student is generally unable to read *at least two* but no more than eighty percent of the words in each paragraph, then the passage will be coded as *medium* for that student. If the student is unable to read *more than eighty percent* of the words per paragraph, then the passage will be coded as *hard* for that student. "Unable to read" would apply to words that the student cannot read properly without prompting. This should *not* include careless errors. If it appears that a student has misread a word only because of a careless error, then that error should not be included in the determination of error rate.

Situational Context

The *context* within which problems are performed may affect the error rate for those problems. For example, a given student might be able to perform certain computation problems with virtually no errors when working alone at his/her seat. The same student, however, might be so distracted when working at the board in the front of the class that he/she shows a high error rate, possibly even being unable to answer the problems at all. Those problems for that student would therefore be coded at different difficulty levels depending upon whether the student is working at his seat or at the board. Hence, the context within which the problems are performed is considered to be *part of* the problems themselves, for the purpose of coding difficulty.

Adapted from: Fisher, Charles W., Filby, Nikola N., Marliave, Richard S., Cahen, Leonard S., Dishaw, Marilyn M., Moore, Jeffrey E., and Berliner, David C. Teaching behaviors, academic learning time and student achievement: Final report of Phase III-B, *Beginning Teacher Evaluation Study*. San Francisco, California: Far West Laboratory, 1978.

ACADEMIC LEARNING TIME (ALT)

Observer Coding Guidelines
for Transition Time

General Transition Time Coding

(1) If whole class is in "Transition," between subjects, code only NT - leave other three categories blank.

(2) If whole class is in "Transition", within subject (R or M), code NT and appropriate content code.

(3) Occasionally a target student may be in "Transition," e.g., in between tasks or before starting a new task, so you will not be able to code difficulty level and/or type of activity.

(4) If a target child continues to work while class or group is in "Transition," code child in content category and other three categoreis.

(5) If target student only is in "Transition" when observed, (while in content area) code all categories, i.e., if the student leaves his/her seat to get paper, sharpen pencil, etc., content, activity, engagement (will be NT), and difficulty should still be coded.

Teacher Transition

If Category II (Classroom Activity) is coded as "2", "3", "4", "5", "6", or "8" (these are teacher-directed activities) then Transition ("NT") is teacher transition.

Student Transition

If Category II is coded as a "1" or a "7" (these are student-directed activities) then Transition ("NT") is student transition.

ACADEMIC LEARNING TIME (ALT) OBSERVATION FORM

Observer____________________ Subject____________________ Grade_______ Teacher__________ __________ ID__________

Month: A M Date__________ Day of week: M T W TH F Observation #________ Time: M A #Minutes__________

Name____________________ ID__________ Name____________________ ID__________ Name____________________ ID__________ Name____________________ ID__________

RI M SW RA RD RI D SI RA O FO FR RI RW RO I M O

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INTERVENTION STRATEGY RECORD (ISR)

Coding Guidelines

Purpose: This instrument is designed to record intervention strategies used spontaneously as a given situation, problem, or disruption warrants.

Coding Format: Coding is on a time sampling basis. The coder observes for a defined period of time and then records all the codable behaviors that occurred during that period. A behavior is recorded only once, even though it may occur several times during the specified period.

Content: The instrument includes eight categories of interventions: (1) planned ignoring; (2) signal interference; (3) modeling; (4) task engagement feedback; (5) redirecting; (6) supporting; (7)use of reinforcers, (8) punishing.

Coding Procedure: The ISR is to be coded concurrently with the ALT Observation Schedule at 5-minute intervals. The coder will take a period of 2 minutes to record the occurrence of each of the 8 behaviors specifified (i.e., about 15 seconds per behavior). The coding sequence in minutes will be as follows:

5 - 2 / 5 - 2 / 5 - 2 / 5 - 2 / 5 - 2 / 5 - 2

Therefore the coder will need a minimum of 42 minutes for each math and reading period in order to code 30 minutes of engagement as well as 6 samplings of intervention strategies utilized.

General Guidelines: (1) Category 2 "Signal Interference" includes non-verbal signals which communicate both approval and disapproval as well as procedural signaling. In this category the attempt is to determine the extent of use of non-verbal communication regardless of the expected student response.

(2) Category 4 "Task Engagement Feedback" could be considered a "Redirecting" teacher behavior since the intent is to reorient the student tc the task at hand. However, we will code separately any verbal reminder that the teacher gives to a student specifically intended to keep the student on-task.

INTERVENTION STRATEGY RECORD (ISR)

Observer Category Definitions

Category	Definition
1. Planned Ignoring	Teacher is aware of behavior but chooses to ignore.
2. Signal Interference	Non-verbal messages which communicate expected behavior, i.e., eye contact, facial expressions, body postures, hand gestures, tapping or snapping fingers, coughing or clearing one's throat, flicking lights on and off, proximity control.
3. Modeling	Teacher points out student(s) who are demonstrating appropriate behavior
4. Task Engagement Feedback	Teacher reminds student(s) to get back on task; draws attention to appropriate task; asks question about how work is going.
5. Redirecting	Removal of student from distraction, i.e., to another part of the room or to deliver a message or removal of object of distraction; assignment of an alternative activity; restructuring of the classroom program, i.e., a change in plans, format, task, or location based on perceived need.
6. Supporting	Any behavior which is supportive to the student, such as providing individual assistance; explaining inappropriateness of behavior; engaging in discussion with problem student(s); encouraging student(s) to express feelings; touching or embracing student; showing verbal affection; making humorous comment.
7. Use of Reinforcers	Use of a "structured" reward system (i.e., token, points, awards, contracts).
8. Punishing	Any response intended to communicate the teacher's disapproval or rejection of the student's behavior including criticizing, ridiculing, or threatening remarks and punitive action such as making the student sit alone, leave the class, stay after school, etc.

INTERVENTION STRATEGY RECORD (ISR)
OBSERVATION FORM

Teacher ____________________

Date ______________________

SUBJECT												BEHAVIOR
Reading						Math						
T 1	2	3	4	5	6	T 1	2	3	4	5	6	
___	___	___	___	___	___	___	___	___	___	___	___	1. Planned Ignoring
___	___	___	___	___	___	___	___	___	___	___	___	2. Signal Interference
___	___	___	___	___	___	___	___	___	___	___	___	3. Modeling
___	___	___	___	___	___	___	___	___	___	___	___	4. Task Engagement Feedback
___	___	___	___	___	___	___	___	___	___	___	___	5. Redirecting
___	___	___	___	___	___	___	___	___	___	___	___	6. Supporting
___	___	___	___	___	___	___	___	___	___	___	___	7. Use of Reinforcers
___	___	___	___	___	___	___	___	___	___	___	___	8. Punishing

OBSERVER RATING SCALE (ORS)

Coding

Purpose:	This instrument is designed to provide a rating of several dimensions of classroom climate.
Content:	The instrument includes 18 categories related to classroom climate: (1) cooperation; (2) warmth; (3) awareness of feelings; (4) acceptance of feelings; (5) relationship with students; (6) fairness, (7) performance expectation; (8) responsiveness; (9) clarity; (10) instructional appropriateness, (11) checking students' work; (12) involvement; (13) student contact; (14) use of time; (15) consistency; (16) need for discipline; (17) non-permissiveness; and (18) praise.
Coding Format:	The rater observes for a defined period of time during reading and/or math instruction. Subsequent to the observation, the observer makes a single rating of each dimension on a three-point scale: low, average, high.
Coding Prodedure:	The ORS is to be completed after an observation period during which a variety of other classroom observation instruments were recorded. For the purpose of this project, ratings were made on twenty occasions.

OBSERVER RATING SCALE (ORS)[a]

Directions: Based on your observation of reading and mathematics instruction, rate the following dimensions of classroom climate.

1. COOPERATION

Ss compete for materials, attention, and "status".	Low	Av	High	Ss help each other, share materials and space; perform tasks together.

2. CLASSROOM WARMTH

Classroom interaction is humorless, cool, sometimes hostile.	Low	Av	High	Classroom interaction is characterized by warm friendship, smiles, laughter.

3. AWARENESS OF FEELINGS

T is not aware of Ss' self-concept and/or feelings.	Low	Av	High	T is aware of Ss' self-concept, and/or feelings.

4. ACCEPTANCE OF FEELINGS

Expression of feelings is discouraged. T's and Ss' feelings are not discussed.	Low	Av	High	T and Ss often express and discuss feelings.

5. RELATIONSHIP WITH STUDENTS

T has poor relationship with Ss. T like and understanding of Ss is not evident.	Low	Av	High	T has good relationship with Ss. T like and understanding of Ss is evident.

6. TEACHER SENSE OF FAIRNESS

T shows favoritism.	Low	Av	High	T treats all Ss fairly.

7. PERFORMANCE EXPECTATION

T shows negative expectations for academic success of Ss.	Low	Av	High	T shows positive expectations for academic success of Ss.

8. RESPONSIVENESS TO STUDENTS

T shows lack of involvement, barely attends to S responses and comments.	Low Av High	T gives a great deal of attention to S responses and comments.

9. CLARITY

T is often not understood by Ss. T language is overly complex or ambiguous. S questions do not get adequately answered.	Low Av High	T's communications are understood by Ss. Ss' questions are answered clearly.

10. INSTRUCTIONAL APPROPRIATENESS

The instructional program is unresponsive to the individual needs and readiness levels of Ss.	Low Av High	The instructional program is highly responsive to the individual needs and readiness levels of the Ss.

11. CHECKING STUDENTS' WORK

T does not closely monitor Ss' work	Low Av High	T frequently and consistently checks Ss' work.

12. TEACHER INVOLVEMENT

T presents a lesson and is inactive while Ss engage in work.	Low Av High	T presents a lesson and remains actively involved as Ss engage in work.

13. INITIATION OF STUDENT CONTACT

Majority of S contact is initiated by Ss.	Low Av High	T consistently initiates S contact.

14. EFFICIENT USE OF TIME

T does not make optimal use of classroom time.	Low	Av	High	T maximizes instruction by making optimal use of classroom time.

15. CONSISTENCY

T sets contingencies but "forgets" or changes mind most of the time; or sets no contingencies.	Low	Av	High	T frequently sets *and* maintains contingencies with individuals and/or groups of students.

16. LACK OF NEED FOR DISCIPLINE

T spends over 50% of her time managing the class.	Low	Av	High	Less than 5% of T's time is used to discipline.

17. NON-PERMISSIVENESS

Little or no restriction is put on S behavior.	Low	Av	High	T expects Ss to behave in an orderly manner and to follow classroom rules.

18. USE OF PRAISE

T seldon uses praise.	Low	Av	High	T consistently encourages Ss through use of praise.

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[a] Items 1,2,3,4,7,8,9,10, & 15 adapted from Rater's Scale in:

Fisher, Charles W., Filby, Nikola N., Marliave, Richard S., Cahen, Leonard S., Dishaw, Marilyn M., Moore, Jeffrey E., and Berliner, David C. Teaching behaviors, academic learning time and student achievement: Final report of Phase III-B, *Beginning Teacher Evaluation Study*. San Francisco, California: Far West Laboratory, 1978.

TEACHER DAILY RECORD INSTRUMENTS

DAILY RECORD (DR)

Coding

Purpose: This instrument is designed to provide a daily record of time allotted to reading and math content for selected students.

Content: The instrument includes eight categories of classroom activities: (1) seatwork; (2) question and answer; (3) recitation, drill; (4) demonstration, lecture; (5) discussion; (6) special individual work; (7) unassigned activities; and (8) other.

Coding Format: Prior to using the DR four students are selected. For the purpose of this project, the four students were carefully selected as a special needs student (i.e., a student with an I.E.P.), and a representative student of low, average, and high ability. The same four students were observed for the ALT observations. The DR is to be completed by the classroom teacher who records the amount of time the students spend in each of the eight activities for a given day.

Coding Procedure: The DR is to be completed on a daily basis for both reading and mathematics periods. Teachers completed the DR each day for a period of four consecutive weeks.

DAILY RECORD (DR)

Classroom Activity Category Definitions

1. **(SW) Seatwork (Students primarily working without teacher)**

    - Activities done individually at seats

    - Students working on assigned tasks

    - Students primarily working alone on such activities as completing a workbook, worksheet, or text assignment; doing silent reading; writing a report; working with supplementary resource books and materials

    - Students using media, such as cassettes, records, filmstrips, or manipulatives or games which have been assigned to them

    - Students interacting with materials rather than the teacher

    - Students generally working at their own pace

    - Students taking written tests

2. (QA) Question and Answer (Teacher-directed)

    - This activity is characterized by a teacher question - student response situation

    - Teacher asks a series of questions which are primarily content, skill, or information oriented

    - Most commonly used during small group (i.e., reading group) work

    - Note: (1) If the question and answer series is very fast-paced with little or no feedback given to individual students, this should be coded as #3 "Drill"

        (2) If the teacher uses students' answers as a springboard for mini-lectures on the material, this should be considered #4 "Lecture"

3. (RD) Recitation, Drill (Teacher-directed)

    - Students reading orally

    - Students orally reviewing previously learned material

    - Use of flash cards

- Students taking teacher-dictated spelling test
- Fast-paced drill exercise, i.e., phonics drill, multiplication facts

4. (DL) Demonstration, Lecture (Teacher-directed)
    - Teacher is presenting information
    - Predominantly verbal presentation of instructional material (usually factual content)
    - Presenting information substantively related to lesson content
    - Introductory comments telling students what they'll be doing
    - Explaining, clarifying material, assignments, directions

5. (D) Discussion (Student-centered)
    - Characterized primarily by students' verbal exchange
    - Teacher may interrupt the dialogue to either allow another student to participate or to focus the dialoque on the intended topic
    - Note: (1) Questions may be asked in this format, but they would tend to be more of the non-content specific, personal reference type, i.e., dealing with feelings or judgments

      (2) Questions in this format would also serve the purpose of stimulating thinking & problem solving, and encouraging others to participate.

6. (SI) Special Individual Work (Includes both teacher-directed activities & seatwork)
    - Extra time spent with individual student(s), i.e., in addition to time spent with class or group
    - Work on special individualized assignment

7. (UA) Unassigned Activities (Primarily students working unsupervised, but on reading or math content)
    - Free-time reading (not assigned)
    - Student unassigned use of media, games or manipulatives
    - Work on projects
    - Other activities done during free-time

8. (O) Other
    - Any activities not specified in categores 1 to 7 that are non-content (reading or math) related.

DAILY RECORD (DR)

Teacher Sample Coding

Targeted Students:

Reading	Green Group:	Lisa, Joe	Math	Group A:	Larry
	Red Group:	Paul		Group B:	Lisa, Mary
	Blue Group:	John		Group C:	Sue

Wnat Happened	How It Is Coded
9:00 - 10:00 Reading Groups	
Blue Group - meets with the teacher for the first 30 minutes. They are learning new words in their textbook. They spend five minutes talking about the meaning of the words in the picture dictionary. The teacher calls special attention to the suffixes and grammatical endings added to root words; the group answers questions about different endings, especially -er and -est.	#5 - 5 minutes #4 - 10 minutes #2 - 15 minutes
After groupwork, the students in the blue group go to their seats and do workbook pages for the rest of the period. John is having a hard time with the bottom of page 46; he has written the words correctly on the top of the page, but but he works more slowly on the bottom part and often has the wrong answer.	#1 - 30 minutes Part of the work in root words and affixes is hard for John, so he receives an H for difficulty.
Green Group - spends the whole period working independently. During the last ten minutes, the teacher takes Lisa for an individual conference, where she reads the story aloud. (Since Lisa has a conference, she spends 10 minutes less on the assignment.)	#1 - 60 minutes Lisa: Add: #3 - 10 minutes Delete: #1 - 10 minutes
Red Group - meets with the teacher for fifteen minutes of oral reading & then five minutes of questions about the story. The rest of the time they do seatwork.	#3 - 15 minutes #2 - 5 minutes #1 - 40 minutes
10:00 - 11:00 Mathematics	
Each group spends 20 minutes in groupwork with the teacher and 40 minutes in seatwork. The teaher meets first with Group A, then with Group B, then with Group C.	

All groups are given the same seatwork assignment from their workbooks.

In small group instruction, the first 5 minutes are spent reviewing basic facts with flash cards. The next 5 minutes are spent counting by 2's, 5's, and 10's with each student extending the sequence started by the previous student. During the last 10 minutes, the students individually write number sentences for word problems dictated by their teacher.

#3 - 10 minutes
#2 - 10 minutes

During the group sessions the teacher sees that both Lisa and Larry are unable to identify the correct operation required by the word problems.

Lisa and Larry receive an H for difficulty.

READING & LANGUAGE ARTS

DAILY RECORD FORM

Teacher: Ms. Perkins

Date: April (Month) 23 (Day)

Day of Week: M [✓ T] W Th F

Grade: 4

Difficulty Codes:

Easy	Ⓔ
Medium	Ⓜ
Hard	Ⓗ
Absent	Ⓐ

CLASSROOM ACTIVITIES		MINUTES							
Name:		Lisa (SN)	Diff. Code	Joe (L)	Diff. Code	Paul (A)	Diff. Code	John (H	Diff. Code
Group:		Green		Green		Red		Blue	
Seatwork	1	50	Ⓜ	60	Ⓔ	40	Ⓔ	30	Ⓗ
Question and Answer	2					5	Ⓔ	15	Ⓜ
Recitation, Drill	3					15	Ⓔ		
Demonstration, Lecture	4							10	Ⓔ
Discussion	5							5	Ⓔ
Special Individual Work	6	10	Ⓔ						
Unassigned Activities	7								
Other: ______ (Specify)	8								
TOTAL TIME (minutes)		60		60		60		60	

MATH

DAILY RECORD FORM

Teacher: Ms. Perkins

Date: April (Month) 23 (Day)

Day of Week: M [✓ T] W Th F

Grade: 4

Difficulty Codes:

Easy	Ⓔ
Medium	Ⓜ
Hard	Ⓗ
Absent	Ⓐ

CLASSROOM ACTIVITIES	MINUTES							
Name:	Lisa (SM)	Diff. Code	Larry (L)	Diff. Code	Mary (A)	Diff. Code	Sue (H)	Diff. Code
Group:	B		A		B		C	
Seatwork 1	40	Ⓜ	40	Ⓜ	40	Ⓔ	40	Ⓔ
Question and Answer 2	10	Ⓗ	10	Ⓗ	10	Ⓔ	10	Ⓔ
Recitation, Drill 3	10	Ⓔ	10	Ⓔ	10	Ⓔ	10	Ⓔ
Demonstration, Lecture 4								
Discussion 5								
Special Individual Work 6								
Unassigned Activities 7								
Other: ____________ (Specify) 8								
TOTAL TIME (minutes)	60		60		60		60	

DAILY RECORD

Teacher Coding Guidelines

1. When seatwork is assigned for a period of time, often the activity and difficulty level will remain the same. However, if there are several separate activities with varying difficulty levels, you should code each separately.

   i.e.,

Seatwork	1	29 E 40 M 10 H
Question and Answer	2	10 E 15 M

2. If you read to your students as part of your reading block, code it as "Demonstration/Lecture".

3. If seatwork is assigned for 30 minutes and it is easy for the child, yet he/she is off task (fooling around, etc.) and gets many wrong as a result (thus making it appear medium) code it as you actually perceived it to be, i.e., 30 min. Ⓔ Note: Always code time as it was assigned. We are getting actual engagement rate on an observation form so you need not consider this aspect.

4. While in the math block or reading block, if students work on unassigned activities that are not math or reading related, respectively, code it as "Other" and write in the activity; for example, a student playing checkers, a game (not math or reading), or working in social studies or science. We want to code this time separately so it will not be counted as time spent working in the content area.

5. Time that a student spends outside of your classroom receiving services from specialists should be recorded under "Other" and should not be included in the total minutes.

Collection of Forms

We will be collecting a complete week's forms - Monday through Friday - each week. So you should turn in your 5 forms for each week on the following week's visit.

DAILY RECORD DIFFICULTY LEVEL

Teacher Category Explanations

The difficulty level of a task for the target student, easy, medium, or hard, must be coded for all reading and mathematics events. Difficulty is coded to indicate the cognitive demands of the reading or mathematics task for the individual student.

The primary basis for determining the difficulty level of a task for a target student is the error rate of that student for the kind of problems included in that task. However, in addition to error rate, the speed with which a student works will sometimes be used to differentiate the difficulty categories.

You should take into account the speed with which the student completes a task only when the student is obviously much slower than the rest of the students working on that task. For example, if the target student has spent 30 minutes on the first three problems of a 20 problem computation worksheet, while most of the class completed the entire worksheet in less than 30 minutes, then medium would be coded even if the target student has answered those first three problems with no errors.

As stated above, the coding of difficulty should be based on the error rate (and speed where applicable) of the target student with respect to the kind of problems included in the task. This should include all dimensions of the task that are of similar stimulus characteristics and response demands. Stimulus characteristics refer to such considerations as the complexity of the words involved in a reading task and the number of digits or numerals used in a mathematics task. Response demands refer to such considerations as whether the student must generate his/her own responses or may select a response from choices provided as part of the task.

Difficulty level is not considered on a problem-by-problem basis. Within a set of related problems, the fact that a student is incorrect in response to one problem and correct in response to the next does not result in the coding of the first response as hard, and the second response as easy. Rather, all of the problems within the related set receive the same difficulty code, according to the student's performance on the set as a whole.

Easy would be coded for activities and materials on which the student has had previous experience and/or for work on skills which the student has already acquired; that is the material should be at a low level of difficulty for the student. Time at this level may serve as reinforcement of existing skills.

Medium difficulty is the middle range between easy and hard, representing those activities that are generally challenging for a target student, involving some unacquired and some existing knowledge or skills.

Hard is a category consisting of tasks that the target student cannot perform beyond a chance level of correct responses. That is, the student shows essentially no understanding of the task.

It should be noted that the category, hard, will generally occur much less frequently and over shorter periods of time than will easy and medium. Hard activities may never be observed for some target students or, perhaps, never in some classes. The categories, easy and medium, however, are both fairly common. Each of these two categories will usually represent a substantial amount of time for every target student.

The easy category is characterized by a very low error rate, where the student appears to be responding with virtually no errors, except what you might expect by chance (careless errors). The hard category is characterized by an extremely high error rate, where the student appears to show virtually no correct responses, except what you would expect by chance (luck). The medium category includes the range between easy and hard. The additional consideration of the speed with which the student works through the problems enters in when virtually no errors are observed, but the student is working at a noticeably slower than average pace. If such an unusually slow but errorless response rate is not simply a function of a low level of engagement, but in fact appears to be the result of the difficulty of the task for that student, then medium would be coded rather than easy.

READING & LANGUAGE ARTS

DAILY RECORD FORM

Teacher: ______________________

Date: ____________ ____________
Month Day

Day of Week: M T W Th F

Grade: __________

Difficulty Codes:

Easy Ⓔ

Medium Ⓜ

Hard Ⓗ

Absent Ⓐ

CLASSROOM ACTIVITIES	MINUTES							
Name:		Diff. Code		Diff. Code		Diff. Code		Diff. Code
Group:								
Seatwork 1								
Question and Answer 2								
Recitation, Drill 3								
Demonstration, Lecture 4								
Discussion 5								
Special Individual Work 6								
Unassigned Activities 7								
Other: ____________ (Specify) 8								
TOTAL TIME (minutes)								

MATH

DAILY RECORD FORM

Teacher: ______________________

Date: ____________ ____________
Month Day

Day of Week: M T W Th F

Grade: ________

Difficulty Codes:

Easy Ⓔ

Medium Ⓜ

Hard Ⓗ

Absent Ⓐ

CLASSROOM ACTIVITIES	MINUTES							
Name: Group:		Diff. Code		Diff. Code		Diff. Code		Diff. Code
Seatwork 1								
Question and Answer 2								
Recitation, Drill 3								
Demonstration, Lecture 4								
Discussion 5								
Special Individual Work 6								
Unassigned Activities 7								
Other: ____________ (Specify) 8								
TOTAL TIME (minutes)								

TEACHER SELF-REPORT INSTRUMENTS[a]

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[a] The following instruments were developed based on the recommendations of the participating teachers, and were primarily written by Janet M. Vacca:
Educational Dimension Survey (EDS)
Philosophy of Education (PE)
Background Information (BI)
Student Interview (SI)

Position____________________

Grade____________________

INTERVENTION STRATEGY INVENTORY

Directions

You are ordinarily faced with a wide variety of situations arising from the many different kinds of students you work with each day. On the following pages are brief descriptions of students' classroom behavior. In each case, you are to choose the intervention strategy which you would most likely use. While the four options provided are clearly not the only possible responses, choose the one closest to what you might actually do given the situation described. In those instances where you definitely would not use any of the options given, write-in the strategy you would use in the space marked "Other".

In order to limit the response time required to complete this inventory, both the situations and intervention strategies presented are necessarily brief. Although you may feel that you need more information for some situations, make your best selection based on the information provided. Also, it should be noted that the strategies given are only intended to capture the overall intent of the intervention. They do not elaborate on the detail of other supplementary actions that you might employ in dealing with the situation, either prior or subsequent to the given strategy.

Remember your task is not to try to identify the "right" answer, but to select what you would actually do.

Circle response A, B, C, or D **or** write-in an alternative strategy.

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Situation	Strategy
1. Roberta, age [illegible], whose mother leaves early for her factory job, is often late for school because she has to get her younger brother off to kindergarten. This morning when you asked Roberta to hurry up and get to work since she was already twenty minutes late, she unexpectedly gave you an argument and said she wasn't hurrying.	A. Tell Roberta you will see her after school. B. Ignore her behavior. C. Tell her to go ahead and take her time - right through recess. D. Take Roberta aside and ask her if she had a problem at home this morning. E. Other:______________________________ ______________________________
2. Lisa, seven years old and the youngest of five, is prone to destroying her school work. She had finished three of her morning dittos. When you reminded her that she had one more to do, she tore all of them up.	A. Make a plan for Lisa so that she can earn a reward if she turns in ten worksheets by the end of the week. B. Warn her that she has until recess to re-do her work. C. Give her the four dittos plus two additional ones and tell her she must stay in from recess to do them. D. Tape "In" and "Out" folders on either side of her desk to help her keep track of her work. E. Other:______________________________ ______________________________
3. Yliana is a fourth grader. Though her school work is usually done well, she is always in and out of her seat. Without having finished her work, she has gone to the bookcase where she has begun to noisily thumb through several books. Other students who are still working are distracted by her racket.	A. Comment on how quietly another classmate is working. B. Remind Yliana that she should be doing her seatwork. C. Scold Yliana for her noisy behavior. D. Tell her after she completes her work she may read quietly. E. Other:______________________________ ______________________________
4. Christine, a first grader, is well liked by her classmates. She is conscientious about her schoolwork and is very capable. You get along well with her, but she is constantly coming up asking you what to do or asking you to check her work. Her papers are almost always errorless. You've just given the class an easy worksheet and Christine has come up to you saying she's not sure how to do it.	A. Explain the task to Christine. B. Tell her to try it and then you'll check her paper when she's done. C. Reprimand her for asking you when she should know what to do. D. Ignore her now, and next time an assignment is given have Christine explain what the class is to do. E. Other:______________________________ ______________________________

Situation	Strategy
5. Jeanne, a sixth grade student, is working far below grade level. She is easily frustrated and is quick to say "I can't do it". However, with individual attention, Jeanne can do the work. When you assigned the class a story to write, Jeanne slammed her books on her desk saying she didn't know how to write stories.	A. Ignore Jeanne. B. Sit her near you and ask her to think of a title and you will help her get started. C. Reprimand her for slamming her books and tell her to get started on her story. D. Ask her to work with another student. E. Other: ______________________________ ______________________________
6. Harold is an extremely timid third grader. He easily becomes upset and frequently breaks into tears. You have trouble reaching him because he resists any contact with you, as well as with his classmates. Today, a classmate took a ball away from him at recess. You noticed him sobbing in the far corner of the schoolyard.	A. Ignore Harold. B. Go up to him and console him. C. Call the two boys together and ask each child to explain what happened. D. Approach him and tell him to stop acting like a baby. E. Other: ______________________________ ______________________________
7. Anthony is in the first grade at Parker Elementary, a Title I school. He frequently displays mildly aggressive behavior. Today, at recess he kicked one of his classmates for no apparent reason.	A. Take Anthony out of the recess activity and tell him he can earn a tangible reward for not engaging in any aggressive behavior during tomorrow's recess. B. Warn Anthony of the consequences of his repeating a similar behavior. C. Scold Anthony and remove him from recess activities for the day. D. Remove Anthony from recess today and don't let him have recess for the rest of the week. E. Other: ______________________________ ______________________________
8. Ricky is a fifth grader. He is an average student and is very anxious about getting his schoolwork done. However, he is very disorganized and seems to be unaware of what is expected. Today's math seatwork assignment was done on yellow paper - in red magic marker with lots of corrections and was very hard to read.	A. Accept the paper as is and warn Ricky that that will be the last time you will accept a paper like that. B. Have Ricky copy it over at home and bring it to you tomorrow. C. Ignore it. Tomorrow remind Ricky right before he starts his math that he needs white paper and a pencil for his assignment. D. Have him stay after school to copy over the paper. E. Other: ______________________________ ______________________________

Situation	Strategy
9. Hilda appears to be an average eight-year old. However, her relationships with her classmates is a problem. Though your relationship with her is fine, the children avoid her. Today when you asked your students to select a partner for a special activity, Hilda was left without a partner.	A. Give Hilda a "special" responsibility in the activity. B. Ask another student to help you and put Hilda with his/her partner. C. Change the format of the activity to groups of three and "make sure" Hilda is included. D. You choose Hilda to be your partner. E. Other:______________________ ______________________
10. Eddie, a fifth grader, comes from a large family. You have noticed that he is very sensitive to criticism. This morning's assignment was to write a paragraph. While checking how students were doing, you commented to Eddie that he should make his sentences longer. He began to sulk. When he turned his paper in, he had not written anything more than the first two sentences you had checked forty minutes ago.	A. Hand Eddie his paper back and tell him you expect it finished before he leaves school today. B. Take his paper without comment. C. Sit down with Eddie and help him get started. D. Ask him why he hasn't written any more since you checked his paper. E. Other:______________________ ______________________
11. Joanne is in the fourth grade. School work is difficult for her and her academic performance is well below grade level. She is generally inattentive and is not concerned about the quality of her work. After arriving late and "forgetting" her math homework, Joanne proceeded to join her reading group without her workbook or pencil. She said she couldn't find them.	A. Send Joanne to her seat to continue looking for the workbook and pencil. B. Give her a pencil and tell her to look on with someone else. C. Reprimand her for her morning's performance. D. Ignore Joanne. E. Other:______________________ ______________________
12. José, a sixth grader, lives with his grandmother in a rough section of town. This morning when you reprimanded him for not having done his math homework he said it was a stupid assignment and he already knew how to multiply anyway.	A. Tell José that since he already knows how to multiply, he can try division at 3:00 today. B. Ignore José's comments. C. Warn José that any further comments will warrant a visit to the principal. D. Give him a multiplication test to take to see if he knows the work. E. Other:______________________ ______________________

Situation	Strategy
13. Jesse is twelve and has grown up in a low-income housing project. A fellow classmate complained to you that Jesse had taken his calculator. Although you doubted the accusation, you asked Jesse to open his desk and the calculator was there.	A. Return the calculator and warn Jesse of the consequence of a second offense. B. Have the class work quietly while you take Jesse out of the class to discuss the incident. C. Criticize Jesse's action in front of his classmates. D. Initiate a discussion with the class about the incident and decide on an appropriate consequence. E. Other: ______________________________ ______________________________
14. Pamela is a fourth grader whose reading achievement is considerably below grade level. She has difficulty keeping her place during oral reading and is easily distracted by other students, extraneous noise, etc. She does not get too concerned about not finishing her work. This morning when you called up her group to correct the morning work, she had begun all four worksheets, but had only done the first example on each. She was the only one in the group who hadn't completed all the work.	A. Accept today's papers. Tomorrow give her only one page at a time. Have her bring the completed page to you. B. Send Pamela back to her seat to complete the worksheets. C. Tell her she will have to complete all the worksheets by the end of the day or stay after school. D. Sit down with Pamela after the group work and have her do the worksheets with you. E. Other: ______________________________ ______________________________
15. Henry, a fourth grade student, has a physical handicap. He has a deformed left arm and walks with a limp. He has only been in your class for two weeks. He has been responding well to you and is able to handle the classwork. You're concerned because his classmates are obviously avoiding contact with him.	A. Send Henry out of the room and have a meeting with the class where you make them aware of your concerns. Make a plan with the class to help Henry feel more a part of the class. B. Select a student and privately ask him/her to make an effort to "be a friend" to Henry. C. Don't intervene. D. Assign Henry an important class responsibility which will require the other students' interaction with him. E. Other: ______________________________ ______________________________
16. Craig, an only child, is in the second grade. He is easily upset when things don't go his way. For recess today you appointed two captains. When Craig wasn't picked he threw all his papers off his desk and then knocked down a book display you had set up.	A. Send Craig to a designated "time-out" area. Leave things for him to pick up when he returns. B. Reprimand Craig for his behavior and tell him he will not be joining the class for recess today. C. Calmly ask him to pick up the things he knocked down. D. Reprimand Craig and tell him he may join recess as soon as he picks up the mess. E. Other: ______________________________ ______________________________

Situation	Strategy
17. Manuel, a low ability sixth grader, has always done poorly in school. He doesn't have much interest in his studies. He is consistently talking to his friends at inappropriate times. Since he was talking to his neighbor, he failed to get the directions for the assignment. He proceeded to yell out to you from his seat, "What are we supposed to do?"	A. Repeat the assignment to the entire class. B. Tell Manuel to forget doing any work, and give him an "F" for the assignment. C. Ask another student to explain the assignment. D. Ask Manuel to come up to your desk and privately chastize him for his talking before repeating the assignment to him. E. Other: ______________________________ ______________________________
18. David is a soft spoken fifth grader. Although he responds well to you on a one-to-one basis, he is often reluctant to participate in class activities or volunteer an answer. Today he has just earned 100 on a social studies test. When you ask him to explain his answer to the fourth question he just hangs his head.	A. Call on another student. B. Say to David, "You had a really great answer and I want you to share it with the class. C. Wait for David to respond. D. Remind David that he is a member of the class and that you expect him to participate. E. Other: ______________________________ ______________________________
19. Steven is eleven and the oldest in his family. He swears excessively. Not only are his comments disruptive, they are contagious. A few of the other students are beginning to see if they can get away with swearing.	A. Deny Steven a privilege each time he swears. B. Ignore Steven's swearing and provide verbal praise when he talks appropriately. C. Tell Steven that he is not allowed to swear in class and mutually agree on a consequence for his swearing. D. Have Steven call his parents and repeat exactly what he said. E. Other: ______________________________ ______________________________
20. Paul, a sixth grade student, has just correctly completed a difficult assignment before anyone else in the room. As usual, instead of selecting an appropriate free-time activity, he is again drumming on his desk with two pencils.	A. Give Paul a "hard teacher glare". B. Walk over to him and take the pencils from him. C. Send Paul on an errand for you. D. Ask Paul how he plans to use his free time. E. Other: ______________________________ ______________________________

Situation	Strategy
21. Yeng is a third grader. He gets along well with his classmates and is achieving above grade level. Although he is very capable, he will constantly come up and ask you if his answers are right or say he's not sure how to do the work. After correctly doing the first three examples on his morning seatwork, he interrupted your reading group to say he didn't understand the next example. It was just like the first three.	A. Remind Yeng he's not to interrupt you during reading group. B. Reprimand him and tell him he can do it without your help. C. Ask him to ask another student. D. Explain the example to Yeng. E. Other:______________________________ ______________________________
22. Matthew is a fourth grade student. Although he is of average ability, he gives up easily without extra support and encouragement. The morning assignment was to use several adjectives in sentences. Matthew became frustrated trying to write his first sentence and then gave up saying he couldn't do it.	A. Help him with the first sentence. Then sit him near you so you can monitor his progress and frustration level. B. Remind Matthew that you expect the paper to be finished before recess. C. Ask him to ask another student for help. D. Allow him to do only the first five sentences. E. Other:______________________________ ______________________________
23. Susan, a fourth grader, is driven to school daily by her mother who works nearby. Susan consistently refuses to do her classwork. When you gave the day's seatwork assignment, Susan refused to do it saying she was sick of doing the same workbook every day.	A. Tell Susan whatever she doesn't finish she can do after school. B. Ignore her. C. Warn her that she has five minutes to get started. D. Tell her when she finishes the workbook pages you have something "new" planned. E. Other:______________________________ ______________________________
24. Jason is a repeater in the second grade. He is very concerned about his school work and fears not being promoted to third grade. He has great difficulty understanding and following directions and forgets them quickly. When you checked his work before lunch, he had done the wrong pages in his workbook and had forgotten he was supposed to finish yesterday's ditto. He became upset that he had spent all his time on the wrong pages.	A. Tell Jason to come after school to do the right pages. B. Console Jason and tell him that you will accept the pages he did but that he will have to finish yesterday's ditto by the end of the day. C. Forget about today's work and sit down with Jason later and negotiate a way to help Jason keep track of his daily assignments. D. Have Jason do the assignments for homework. Then work out a checklist for his daily assignments. E. Other:______________________________ ______________________________

Situation	Strategy
25. Sara, a soft-spoken second grader, is always seeking your approval. She is quick to catch on and is capable of working independently. You have a good rapport with Sara. She prefers talking with you to being with her classmates. She is quickly becoming your "shadow." She has just raised her hand for the second time to ask you for help. You know she knows how to do the work.	A. Reprimand Sara. B. Ask her to finish the paper by herself and then bring it up and you will check it. C. Ask another student to help Sara. D. Ignore Sara's raised hand. E. Other:__________________________ ________________________________
26. Gregg, a second grader, is habitually breaking the classroom rules. Though he has above average potential, he seldom completes his work in a satisfactory manner. Without having completed his seatwork, he has gone to the activity center and taken out a game. Your students know that they have to finish all of their work before they can play a game.	A. Ask Gregg to show you his work before he plays the game. B. Take the game away from him. C. Ask him to tell you the class rule concerning when to use the activity center. D. Tell Gregg to sit down and put his head down. He will do his work during recess. E. Other:__________________________ ________________________________
27. Joyce is a sixth grader who has recently transferred from private school. This morning during an argument she grabbed a classmate's transistor radio and smashed it on the floor. Joyce had not previously exhibited such destructive behavior in the classroom.	A. Reprimand Joyce in front of her classmates. B. Calmly ask Joyce to wait outside in the hallway for you. C. Tell Joyce that her behavior is unacceptable and negotiate a plan for her to replace the radio. D. Tell her to see you after school. E. Other:__________________________ ________________________________
28. Darryl is a first grader. He is extremely restless and fidgety. Today he is persisting in roaming around the room every time you take your eyes off him. You have already asked him to take his seat a number of times this morning. Now he's up again and talking with a friend. He hasn't finished his seatwork.	A. Tell Darryl he will have to stay in for recess. B. Establish a program for Darryl whereby he will receive a reward for remaining in his seat for a specified amount of time. C. Remind him that only those who have finished their work should be out of their seats. D. Have him move his seat next to yours so you can monitor his whereabouts and work. E. Other:__________________________ ________________________________

Situation	Strategy
29. Tonia, a first grader, is the youngest in her family. She frequently complains about her assignments or about other students bothering her. You asked the class to draw pictures for each of their new vocabulary words. Tonia complained that there were too many words. When you checked her paper, she had scribbled a "blob" for each word.	A. Comment on how neatly several other students drew their pictures. B. Tell Tonia she will have to redo the paper when the rest of the class has free time. C. Ignore her behavior. D. Set up parent conference to develop a mutual plan. E. Other:______________________________ ______________________________
30. Louise is a first grader who has been shy with you since the beginning of the year. As the children are getting their coats to go home, Louise's new coat accidently falls to the floor. You notice that Louise is fighting to hold back tears when she sees her coat on the floor.	A. Ignore Louise. B. Casually pick up her coat and hand it to her. C. Tell her to hurry and get her coat because you want her to lead the line. D. Pick up her coat and tell her that there's nothing to be upset about. E. Other:______________________________ ______________________________
31. Nina, age 9, is the sixth of eight children. She regularly destroys materials in the classroom. Today you discovered her reading book in her desk with the cover missing and several pages torn in half.	A. Warn Nina that if you find any more pages destroyed that she will pay for the book. B. Explain that textbooks are expensive and other students will need to use them. C. Send her and the book to the principal. D. Work out a contract with her for care of materials. E. Other:______________________________ ______________________________
32. Patty is a very verbal, bright fifth grader. She tends to be excessively bossy with her classmates and is constantly giving orders. Consequently, she has few friends. This morning two other girls in the class came to you complaining loudly that they didn't want to sit near her because she was always trying to tell them what to do.	A. Reprimand the two girls and send them back to their seats. B. Move the girls' seats and reprimand Patty. C. Call all three girls up to your desk and ask each one to tell her side of the story. Try to negotiate a solution that will be agreeable to all. D. Tell Patty that you are going to signal her by "clearing your throat" whenever you hear her being "bossy." E. Other:______________________________ ______________________________

Situation	Strategy
33. Richard is in the fourth grade. He generally works well and does not present a problem. However, you have noticed that whenever you assign something that is new or different he becomes anxious and says he can't do it. When you handed out new workbooks to Richard's reading group and gave the first assignment, he said it was too hard for him.	A. Agree with Richard that the new workbook is harder, but tell him you're sure he can do it. Ask him to try it on his own first. B. Sit down with Richard and help him do the first example. Have him finish the assignment and then bring it to you to check it. C. Ignore his complaint. D. Deny that the new workbook is too hard for him and express your dissatisfaction with his constant complaints. E. Other:________________________ ______________________________
34. Brian just returned to his fourth grade class after missing school for two weeks, vacationing with his family in the Virgin Islands. When you gave Brian his assignments to make up and told him you expected them done by the end of the week, he said it wasn't fair and he wasn't going to do it.	A. Ignore Brian's remarks. B. Remind him that you make the rules in this class. C. Keep him after school. D. Discuss the issue with Brian and agree to a timetable for completion. E. Other:________________________ ______________________________
35. Barbara, a third grade student, has just finished her math assignment. Your students know that they are to choose one of several activities when their work is completed. Barbara is doodling, squirming in her seat, and moving her desk back and forth. This is a frequent behavior for Barbara.	A. Ignore Barbara's behavior. B. Remind her that she was supposed to select an appropriate activity. C. Reprimand her for disturbing the class. D. Calmly approach her, putting your hands on her shoulders, and ask her to get a math game to play. E. Other:________________________ ______________________________
36. Roxanne is a third grade student who is achieving below grade level. She generally works hard and doesn't present a problem. You have noticed that Roxanne has difficulty adjusting to any change from ordinary procedure. Today's schedule was hectic with several special activities, no recess, and a late lunch. By the end of the day Roxanne was obviously upset. During the last half hour of school you told your students to finish their reading worksheet and bring it up to you. Then they could select a free-time activity. Roxanne came up to you and said she knew she had finished hers but she couldn't find it.	A. Help Roxanne look for her paper. B. Tell her she will have to hand the completed paper in before she leaves. C. Tell her to start it again and do as much as she can until the bell rings. D. Have her select a free-time activity and look for it tomorrow. E. Other:________________________ ______________________________

Situation	Strategy
37. Katie is a second grader at Greenridge Elementary. She oftentimes loses her temper in school. This morning during seatwork she threw her workbook at her neighbor.	A. Reprimand Katie for her behavior and make her sit alone. B. Calmly make Katie aware of the consequence of her behavior. C. Ignore her inappropriate behavior and provide verbal praise when she is appropriately doing her seatwork. D. Tell her you will see her after school. At that time work out a contract to reduce Katie's outbursts. E. Other:____________________ ________________________
38. Lenny, a sixth grade student, was kept back last year. Though he works slowly, he tries very hard and is managing to keep up with his classwork. A number of his classmates were teasing him saying he was always the last one done. Others joined in. Lenny was upset by his classmates' comments. This had happened several times before.	A. Ignore the situation. B. Call Lenny to your desk and ask him to deliver a message. C. Scold the students who are teasing Lenny and tell them you want to see them after school. D. Hold a class discussion about the situation. E. Other:____________________ ________________________
39. Carolyn, a fifth grade student, appears to be very capable, although her school work is barely at grade level. She is frequently out of her seat talking to her friends during assigned seatwork. This is the third time this morning you've noticed her visiting a friend.	A. Tell her to sit down and make it clear that if she is out of her seat again she will have to practice sitting quietly at recess. B. Gently escort her to her seat, hand her her pencil and stand over her until she begins her work again. C. Reprimand her for being out of her seat for the third time. D. Isolate Carolyn at a desk away from the group. E. Other:____________________ ________________________
40. Scott, an only child, is in the first grade at Hillside Elementary. This afternoon he had his third temper tantrum of the day.	A. Shame Scott by emphasizing how "babyish" his behavior is. B. Send him to a designated "time-out" area. C. Ignore Scott's behavior. D. Send Scott to the principal's office and have him sent home if possible. E. Other:____________________ ________________________

Situation	**Strategy**
41. Michael, a sixth grader, is very bright He is achieving far above grade level. He likes to be the first one finished and usually is. In his desire to please you, he will often rush through a paper just to get it done, making careless errors, or rush ahead without getting the directions straight. His relationship with his classmates is poor, due to his highly competitive behavior. Michael just turned in a paper well before anyone else. You noticed there were several careless errors.	A. Hand the paper back to Michael without commenting. B. Reprimand him in front of the class for rushing and making so many errors. C. Comment on how carefully another student is doing the assignment. D. Mark the answers which he needs to go over and change. E. Other: ______________________________ ______________________________
42. Meredith is a second grader who responds well to you but isolates herself from her peers. Although it is close to the end of the year, she still spends recess off by herself. Today you organized the children for a game of "Duck, Duck, Goose" and Meredith refuses to play.	A. Let her play alone. B. Tell her she'll have to sit quietly and watch the game. C. Insist that Meredith join the group. D. After you begin the game, discuss with Meredith her reason for not wanting to play. E. Other: ______________________________ ______________________________
43. Mary is in the third grade. Although she is a good student, Mary constantly forgets what she is supposed to be doing and often times doesn't have the materials she needs. This morning Mary could not find her workbook when you asked her to bring it up to correct it in her reading group.	A. Sit down with Mary after you finish with the group and make up a checklist which she can use to keep track of the materials she will need for different classroom activities. B. Give Mary another workbook and tell her she will have to stay in for recess and do the work. C. Ask Mary to look on with her neighbor. D. Make her return to her seat and copy the workbook assignment pages before completing them. E. Other: ______________________________ ______________________________
44. Denise, age eleven, is the oldest in a family of six children. A number of times recently you had corrected Denise for behaving inappropriately and she had denied doing so. Today the class was assigned two worksheets to complete before recess. When you collected the papers, Denise turned in one saying she had only received one. You had given explicit directions that everyone was to complete two papers.	A. Accept the one paper without comment. B. Reprimand Denise and tell her she will stay after school if the second paper is not completed by the end of the day. C. Take her aside and discuss your concern about her frequent denials. Set a goal with Denise for reducing her denying behavior. D. Give her another copy of the second worksheet and tell her to do it immediately. E. Other: ______________________________ ______________________________

CLASSROOM MANAGEMENT QUESTIONNAIRE

It is important that your response to each item be in terms of a description of what actually happens in your classroom. Try to respond to the items from your own personal point of view. That is, answer each one in terms of your personal teaching experience this year. Do not respond in terms of what you think should happen, nor in terms of what may be happening in other classrooms in your school.

It should be noted that some items in the schedule deal with human behavior within the classroom, while other items in the schedule are concerned with the physical structure of the environmental setting. The rating scale, as it is described below, is inclusive for each of these components. In the rating scale description, the word "behavior" refers to the human behavior component; the work "dimension" refers to the physical structure component. You will use whichever one is applicable for each item rated. Rate each of the items of the questionnaire according to the following scale:

1 - NEVER	This behavior or dimension is NEVER present in your classroom this year.
2 - SELDOM	This behavior or dimension is present to some extent, but it is the EXCEPTION rather than the rule.
3 - SOMETIMES	This behavior or dimension is present in your classroom 50% of the time.
4 - FREQUENTLY	This behavior or dimension is present substantially, such that it is an integral part of your classroom environment.

Circle the number corresponding to your choice.

Remember: Select your responses in terms of what ACTUALLY happens, not in terms of what SHOULD HAPPEN.

Grade taught ____

		NEVER	SELDOM	SOMETIMES	FREQUENTLY
1.	My lessons are oriented toward the behavioral objective of the curriculum.	1	2	3	4
2.	Once I give students an assignment I expect them to complete it on their own.	1	2	3	4
3.	I like my students to have unlimited mobility within my classroom.	1	2	3	4
4.	I do not speak to my students more than once. I take action.	1	2	3	4
5.	I use a diagnostic-prescriptive monitoring system in my classroom for guiding students through a variety of learning experiences appropriate to their developmental needs.	1	2	3	4
6.	I structure my lessons in such a way that students are guided from the understanding of general principles to the knowledge of specific applications.	1	2	3	4
7.	I use information from other teachers and previous records to form ad hoc groups in my classroom.	1	2	3	4
8.	I correct the homework assignments in class the next day.	1	2	3	4
9.	I place emphasis on providing progress feedback to my students.	1	2	3	4
10.	The desks in my classroom are arranged in rows.	1	2	3	4
11.	I must have complete order in my classroom before I will begin to teach.	1	2	3	4
12.	In my classroom I encourage children to go to the restroom at a certain time as a group.	1	2	3	4
13.	I structure my lessons in such a way that students are guided from the knowledge of many specifics to an understanding of general principles.	1	2	3	4
14.	I use daily classroom performance data to form ad hoc groups in my classroom.	1	2	3	4
15.	I correct student papers and quizzes the same day or no later than the next day.	1	2	3	4
16.	I place emphasis on providing progress feedback to my students' parents.	1	2	3	4

		NEVER	SELDOM	SOMETIMES	FREQUENTLY
17.	In my classroom one of the ground-rules is, "Raise your hand before you speak".	1	2	3	4
18.	Students are allowed to leave the classroom without my permission.	1	2	3	4
19.	When my students are late for an activity I reprimand them.	1	2	3	4
20.	I encourage students to have individual contact with me during class time.	1	2	3	4
21.	I have standard procedures for dealing with absentees when they return.	1	2	3	4
22.	I follow and complete my lesson plans.	1	2	3	4
23.	The students in my room have assigned seats for all classes.	1	2	3	4
24.	I rely on the basal text for structuring my lessons.	1	2	3	4
25.	I use a trial-and-error approach to forming ad hoc groups in my classroom.	1	2	3	4
26.	Lesson plans are a guide for me; if one isn't working I discard it.	1	2	3	4
27.	Students are encouraged to assume various postures for different learning activities.	1	2	3	4
28.	I use diagnostic test data to form the ad hoc groups in my classroom.	1	2	3	4
29.	I record student progress systematically through work sheets, quizzes, etc.	1	2	3	4
30.	I use non-verbal signals in my classroom to get the attention of the whole class.	1	2	3	4
31.	I spend some time individually with a child who has missed instruction because of absence from school.	1	2	3	4
32.	In my classroom one of the ground-rules is, "Respect the learning-time of others by not disturbing them with noise, teasing, etc."	1	2	3	4

EDUCATIONAL DIMENSION SURVEY
(EDS)

Directions: Please answer each dimension by circling the number which most accurately represents your position on that dimension.

	Dimension	Scale				
		1	2	3	4	5
		High				Low
1.	Satisfaction with teaching as a profession	1	2	3	4	5
2.	One-to-one teacher-child interaction in your classroom	1	2	3	4	5
3.	Emphasis on academic skills	1	2	3	4	5
4.	Your effectiveness as a disciplinarian	1	2	3	4	5
5.	Satisfaction with parental cooperation when sought	1	2	3	4	5
6.	Your teaching effectiveness as compared to your co-teachers	1	2	3	4	5
7.	Rapport with your principal	1	2	3	4	5
8.	Confidence in auxiliary services:	1	2	3	4	5
	a. guidance department	1	2	3	4	5
	b. psychological services	1	2	3	4	5
	c. diagnostic services	1	2	3	4	5
	d. special education	1	2	3	4	5
9.	Satisfaction with the standard of education set by your administration:					
	a. principal	1	2	3	4	5
	b. curriculum staff	1	2	3	4	5
	c. special education department	1	2	3	4	5
	d. superintendent's office	1	2	3	4	5
10.	Performance of tasks that are not required	1	2	3	4	5
11.	Provision for individualizing instruction for the below-average student	1	2	3	4	5
12.	Satisfaction with your present teaching assignment	1	2	3	4	5
13.	Overall job satisfaction	1	2	3	4	5

JOB SATISFACTION QUESTIONNAIRE[a]

The purpose of this questionnaire is to give you a chance to tell how you feel bout your present job, what things you are satisfied with and what things you are not satisfied with.

Directions: On the following pages you will find statements about your present job. Read each statement carefully and decide how satisfied you feel about the aspect of your job described by the statement. Circle the number corresponding to your choice. Please answer every item. Be frank and honest in order to provide a true picture of your feelings about your present job.

ASK YOURSELF: How satisfied am I with this aspect of my job?

(5) VS means I am Very Satisfied with this aspect of my job.
(4) S means I am Satisfied with this aspect of my job.
(3) N means I Can't Decide whether I am satisfied or not with this aspect of my job.
(2) D means I am Dissatisfied with this aspect of my job.
(1) VD means I am Very Dissatisfied with this aspect of my job.

ON MY PRESENT JOB, THIS IS HOW I FEEL ABOUT ...	VD	D	N	S	VS
1. The variety in my work..............................	1	2	3	4	5
2. The chance to have other workers look to me for direction	1	2	3	4	5
3. The chance to do the kind of work that I do best..	1	2	3	4	5
4. The way my supervisor and I understand each other.	1	2	3	4	5
5. My job security...................................	1	2	3	4	5
6. The amount of pay for the work I do...............	1	2	3	4	5
7. The opportunities for advancement on this job.....	1	2	3	4	5
8. The spirit of cooperation among my co-workers.....	1	2	3	4	5
9. The chance to be responsible for planning my work.	1	2	3	4	5
10. Being able to see the results of the work I do....	1	2	3	4	5
11. The chance to be active much of the time..........	1	2	3	4	5

ASK YOURSELF: How satisfied am I with this aspect of my job?

(5) VS means I am Very Satisfied with this aspect of my job.
(4) S means I am Satisfied with this aspect of my job.
(3) N means I Can't Decide whether I am satisfied or not with this aspect of my job.
(2) D means I am Dissatisfied with this aspect of my job.
(1) VD means I am Very Dissatisfied with this aspect of my job.

ON MY PRESENT JOB, THIS IS HOW I FEEL ABOUT ...	VD	D	N	S	VS
12. The chance to do new and original things on my own	1	2	3	4	5
13. The chance to do different things from time to time	1	2	3	4	5
14. The chance to tell other workers how to do things..	1	2	3	4	5
15. The way my job provides for a secure future........	1	2	3	4	5
16. The competence of my supervisor in making decisions	1	2	3	4	5
17. The chance to develop close friendships with my co-workers..................................	1	2	3	4	5
18. The chance to make decisions on my own............	1	2	3	4	5
19. The chance to help people........................	1	2	3	4	5
20. The routine in my work...........................	1	2	3	4	5
21. The pleasantness of the working conditions........	1	2	3	4	5
22. The way promotions are given out on this job......	1	2	3	4	5
23. The way my boss delegates work to others..........	1	2	3	4	5
24. The friendliness of my co-workers....	1	2	3	4	5
25. The recognition I get for the work I do........ ..	1	2	3	4	5
26. Being able to do something worthwhile.............	1	2	3	4	5
27. The chance to work independently of others........	1	2	3	4	5
28. The chance to do something different every day....	1	2	3	4	5
29. The chance to be important in the eyes of others..	1	2	3	4	5
30. The amount of work I do..........................	1	2	3	4	5
31. The way my boss provides help on hard problems....	1	2	3	4	5

ASK YOURSELF: How satisfied am I with this aspect of my job?

(5) VS means I am Very Satisfied with this aspect of my job.
(4) S means I am Satisfied with this aspect of my job.
(3) N means I Can't Decide whether I am satisfied or not with this aspect of my job.
(2) D means I am Dissatisfied with this aspect of my job.
(1) VD means I am Very Dissatisfied with this aspect of my job.

ON MY PRESENT JOB, THIS IS HOW I FEEL ABOUT...	VD	D	N	S	VS
32. The freedom to use my own judgment..............	1	2	3	4	5
33. The chance to be "on the go" all the time.......	1	2	3	4	5
34. The chance to try my own methods of doing the job.	1	2	3	4	5
35. The chance to make use of my abilities and skills.	1	2	3	4	5
36. The way my co-workers get along with each other...	1	2	3	4	5
37. The responsibility of my job....................	1	2	3	4	5
38. The praise I get for doing a good job....	1	2	3	4	5
39. The feeling of accomplishment I get from the job..	1	2	3	4	5
40. Being able to keep busy all the time......	1	2	3	4	5

Adapted from: Minnesota Satisfaction Questionnaire.
Vocational Psychology Research, University of Minnesota, 1963.

Name____________________

TEACHER OPINION INVENTORY[a]
(TOI)

Directions

The following pairs of statements have been chosen to illustrate some real questions about the teaching role. The purpose of the inventory is to obtain a clearer picture of the attitudes and feelings teachers have regarding these controversial issues.

Please consider the two statements given beside each number. Ask yourself, "Where do I generally stand regarding these contrasting positions?" Then, mark one "X" on the continuum indicating how you most often would respond, though exceptions often occur.

A mark in Column "1" represents Strong Agreement with the first statement.

A mark in Column "2" indicates Mild Agreement with the first statement.

A mark in the center column ("3") will indicate No Preference, or that both statements seem equally valid to you.

A mark in Column "4" represents Mild Agreement with the second statement.

A mark in Column "5" indicates Strong Agreement with the second statement.

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[a] Adapted from: Whitmore, J.R. A Teacher Attitude Inventory: Identifying teacher positions in relation to educational issues and decisions. Stanford, California: Stanford Center for Research and Development in Teaching, 1974.

	1	2	3	4	5	
Schools are too structures these days.	____	____	____	____	____	A major problem in today's schools is a lack of well-defined structure.
Most of my energy is spent trying to retain some control and maintain order.	____	____	____	____	____	Most of my energy is spent trying to find ways to make the curriculum meaningful to individual students.
Teachers need many opportunities to increase their skills and knowledge of new techniques by participating in inservice workshops.	____	____	____	____	____	Inservice workshops are not necessary; teaching experience and individual coursework help teachers more.
The teacher's prime responsibility to the child is to teach him/her how to fit into the society and meet its expectations.	____	____	____	____	____	The teacher's prime responsibility is to help the child feel free to develop toward an increasing sense of self-fulfillment as an individual, relatively independent of society's expectations.
Teachers should not become too personally and emotionally involved with individuals in the class.	____	____	____	____	____	A teacher must be a friend before he/she can help a student realize his or her fullest potential.
Teachers should be acknowledged for being innovative and opportunity should be provided for them to share their ideas with other teachers.	____	____	____	____	____	No special recognition should be given teachers for being "innovative" as it fosters a competitive spirit.

	1	2	3	4	5	
. Some children cannot be motivated because of other environmental influences.	____	____	____	____	____	There is no child who cannot be motivated to learn.
. The teaching style (methodology) and curriculum should be consistent within a school and relatively consistent within a district.	____	____	____	____	____	Every teacher should be free to modify the curriculum or implement any method that helps him/her accomplish district or nationally defined objectives for the grade.
. Some form of individualized instruction is generally more effective than group instruction.	____	____	____	____	____	Group instruction is still the most practical and effective method of teaching.
. Children cannot learn well in a noisy room full of movement.	____	____	____	____	____	Children should be allowed to talk and to leave their seats or the room freely any time to accomplish work.
. A teacher should be free to test any idea of a new technique in teaching.	____	____	____	____	____	Experimentation should occur only under the close supervision of administrative staff.
. A teacher can significantly influence the attitudes and values of children even from a "culturally deprived" home and social environment.	____	____	____	____	____	A teacher can do very little to motivate children from a "culturally deprived" home and social environment.

	1	2	3	4	5	
3. Most children are capable of increasing responsibility for self-evaluation and self-discipline as individuals and as a group.	____	____	____	____	____	Pupils cannot be expected to assume responsibility for self-discipline and evaluation before the secondary level; until then the teacher must assume most responsibility for discipline and evaluation.
4. There is too much experimentation in our schools and too little respect for traditional approaches.	____	____	____	____	____	Teachers must be willing to experiment with new approaches because our schools are in need of many changes before they will successfully do their job.
5. Individual pupil conferences with all students are very seldom possible.	____	____	____	____	____	A teacher can and should make time for frequent conferences with individual pupils on personal and academic matters.
6. Teaching staffs should be more involved in the development and evaluation of their programs.	____	____	____	____	____	Development and evaluation of programs can best be carried out by administrative staffs.
7. Group discussions in class are usually a waste of time.	____	____	____	____	____	Group dialogue and exploration of ideas are useful educational techniques.
8. A teacher should employ any approach or technique that will contribute toward the development of the potential for uniqueness, creativity, and individuality in each child.	____	____	____	____	____	The teacher is most effective when he or she confines her or his methods to standard ones such as those suggested in curriculum guides which are designed to be suitable to most children.

		1	2	3	4	5	
19.	Teachers are not intended to be psychologists and therefore should confine their efforts to teaching subject matter and academic skills.	____	____	____	____	____	Teachers must apply the principles and theories of social psychology and child development to most effectively provide for learning and socio-emotional needs of each child.
20.	Students should be encouraged to become increasingly involved in planning and evaluating.	____	____	____	____	____	Students may be involved only to a very limited extent regarding planning and evaluating; the final decisions must be those of the teacher.
21.	Too much flexibility and pupil planning in a classroom creates feelings of insecurity and confusion.	____	____	____	____	____	Flexibility and spontaneity in a classroom are vital because such conditions foster creativity and enthusiasm.
22.	It is most effective for a teacher to gain the respect of his or her pupils as a friend.	____	____	____	____	____	It is important for a teacher to demand the respect of his or her pupils by maintaining a proper amount of distance.
23.	Teachers should help each other evaluate approaches, identify problems or weaknesses and design methods of correcting the problems.	____	____	____	____	____	Evaluation should be a personal matter, involving only the teacher and principal.
24.	Teaching is most rewarding because of the variety of individuals I enjoy working with as students.	____	____	____	____	____	Teaching is most rewarding when my class accomplishes great gains in subject areas.

		1	2	3	4	5	
25.	For effective learning to occur, the teacher must first establish firm group control which later may be relaxed somewhat.	____	____	____	____	____	For effective learning to occur, the teacher must first find ways of motivating individuals.
26.	The first concern of a teacher should be to gain knowledge of each individual child as a person.	____	____	____	____	____	The first concern of a teacher should be to establish and maintain an efficient organization of time and control of pupil behavior.
27.	A great amount of flexibility is necessary to motivate children and teach effectively.	____	____	____	____	____	A great amount of regularity and consistency from day to day is essential to effective teaching.
28.	Children need a great deal of opportunity for self-selection and self-direction in classroom work.	____	____	____	____	____	Children need well-defined structure and expectations which make clear what they should do during each period.
29.	Assuming you have 25 or more pupils, heterogeneous grouping is definitely best for the child and probably for the teacher in the long run.	____	____	____	____	____	Assuming you have 25 or more pupils, some form of homogeneous grouping is definitely the only way a teacher can effectively teach.
30.	Knowledge of subject matter and skills in methods of teaching it to groups are far more important to successful teaching than is an understanding of social psychology.	____	____	____	____	____	The ability to implement a variety of methods adapted to invidual learning styles is more important than mastery of subject matter for effective teaching.

A SURVEY OF TEACHER'S OPINIONS RELATIVE TO MAINSTREAMING SPECIAL NEEDS CHILDREN

Recent legislation requires that children with special needs be integrated into the regular classroom to the extent that such integration is possible. Educators have long realized that one of the most important influences on a child's educational progress is the classroom teacher. The purpose of this questionnaire is to obtain information that will aid school systems in maximizing the classroom teacher's effectiveness with special needs children placed in his/her classroom.

Section I: Background Variables

Please circle your response to the following items:

1. Grade level taught:	K	1-3	4-6	7-9	10-12
2. Number of students in your class:	11-15	16-20	21-25	26-30	31-35
3. Number of students in your school:	1-300	301-600	601-900	901-1200	1200+
4. Type of school:	Urban		Suburban		Rural
5. My degree of success to date in dealing with special needs students in the regular classroom has been:	very low	low	average	high	very high
6. The level of administrative support I have received relative to special needs students has been:	very low	low	average	high	very high
7. The availability of additional support services for accommodating special needs students, such as, resource room, resource teacher, remedial reading teacher, counseling, appropriate instructional materials, etc., has been:	very low	low	average	high	very high

Section II: Teacher Opinions

Please circle the number under the column that best describes your agreement or disagreement with the following statements. There are no correct answers; the best answers are those that honestly reflect your feelings.

Scale: SA = Strongly Agree D = Disagree

A = Agree SD = Strongly Disagree

	SA	A	U	D	SD
Many of the things teachers do with regular students in a classroom are appropriate for special needs students.	1	2	3	4	5
The needs of handicapped students can best be served through special, separate classes.	1	2	3	4	5
A special needs child's classroom behavior generally requires more patience from the teacher than does the behavior of a normal child.	1	2	3	4	5
The challenge of being in a regular classroom will promote the academic growth of the special needs child.	1	2	3	4	5
The extra attention special needs students require will be to the detriment of the other students.	1	2	3	4	5
Mainstreaming offers mixed group interaction which will foster understanding and acceptance of differences.	1	2	3	4	5
It is difficult to maintain order in a regular classroom that contains a special needs child.	1	2	3	4	5
Regular teachers possess a great deal of the expertise necessary to work with special needs students.	1	2	3	4	5
The behavior of special needs students will set a bad example for the other students.	1	2	3	4	5
Isolation in a special class has a negative effect on the social and emotional development of a special needs student.	1	2	3	4	5
The special needs child will probably develop academic skills more rapidly in a special classroom than in a regular classroom.	1	2	3	4	5
Most special needs children do not make an adequate attempt to complete their assignments.	1	2	3	4	5
Integration of special needs children will require significant changes in regular classroom procedures.	1	2	3	4	5
Most special needs children are well-behaved in the classroom.	1	2	3	4	5
The contact regular class students have with mainstreamed students may be harmful.	1	2	3	4	5
Regular classroom teachers have sufficient training to teach children with special needs.	1	2	3	4	5
Special needs students will monopolize the teacher's time.	1	2	3	4	5

		SA	A	U	D	SD
8.	Mainstreaming the special needs child will promote his/her social independence.	1	2	3	4	5
9.	It is likely that a special needs child will exhibit behavior problems in a regular classroom setting.	1	2	3	4	5
0.	Diagnostic-prescriptive teaching is better done by resource-room or special teachers than by regular classroom teachers.	1	2	3	4	5
1.	The integration of special needs students can be beneficial for regular students.	1	2	3	4	5
2.	Special needs children need to be told exactly what to do and how to do it.	1	2	3	4	5
3.	Mainstreaming is likely to have a negative effect on the emotional development of the special needs child.	1	2	3	4	5
4.	Increased freedom in the classroom creates too much confusion.	1	2	3	4	5
5.	The special needs child will be socially isolated by regular classroom students.	1	2	3	4	5
6.	Parents of a special needs child present no greater problem for a classroom teacher than those of a normal child.	1	2	3	4	5
7.	Integration of special needs children will necessitate extensive retraining of regular teachers.	1	2	3	4	5
8.	Special needs students should be given every opportunity to function in the regular classroom setting, where possible.	1	2	3	4	5
9.	Special needs children are likely to create confusion in the regular classroom.	1	2	3	4	5
0.	The presence of special needs students will promote acceptance of differences on the part of regular students.	1	2	3	4	5

PHILOSOPHY OF EDUCATION (PE)

I think the five most important factors of effective teaching are:

(1)

(2)

(3)

(4)

(5)

INTERVIEW INSTRUMENTS

BACKGROUND INFORMATION

1. Name ______________________

2 School ______________________

3. Current Grade ______________________

4. Total years teaching experience ______________________

5. Number of years at present grade level ______________________

6. Number of years at present school ______________________

7. Highest degree earned (including credits above) ______________________

8. Number of students in your class ______________________

9. Number of students in your school ______________________

10. Number of teachers in your school ______________________

11. Approximate socio-economic status (SES) of students in your class:

% Low SES ______________

% Middle SES ____________

% High SES ______________

12. Socio-economic status (SES) of your school ______________________

13. Number of reading groups in your class ______________________

14. Number of math groups in your class ______________________

15. Do you do any "team" teaching (i.e., other teachers conduct some of the instruction of your students)?

Yes ________________

No ________________

If so, please explain.

16. Do any of your students see a specialist outside your classroom?

Yes ________________

No ________________

If so, please list names.

Reading	________	________	________
Math	________	________	________
Learning Disability	________	________	________
Speech	________	________	________
Other (specify)	________	________	________
Other (specify)	________	________	________

17. Does your special needs student have an I.E.P.?

Yes ________________

No ________________

If yes, is this child a learning disabled child?

Yes ________________

No ________________

If no, does he/she currently have a pending referral?

Yes ________________

No ________________

18. Does your special needs student receive Title services?

Yes ________________

No ________________

If so, how much time per week? ________________

19. Does your special needs student receive resource help?

Yes ________________

No ________________

If so, how much time per week? ________________

READING PROGRAM IMPLEMENTATION

Recent trends for individualizing instruction vary along a continuum from differentiated instruction to totally individualized instruction depending upon the degree to which teacher- and/or student-determined goals and objectives, sequence and pace, materials and methods, activities, interests, and assessment devices are utilized. This chart is designed to provide information regarding your strategy for differentiating instruction in the teaching of reading.

Objectives, methods, materials, sequence, rate, and assessment may be defined by either the teacher, the commercial reading program being used, or the individual student. Likewise, each of these six categories may be either the same for the whole class, differentiated for each reading group, or individualized for each student. Your task is to select from among the three choices in each of the twelve areas the answer which is most representative of the procedural structure of your own instructional program for reading. Please provide your answers by circling the appropriate letter in each of the 12 blocks.

KEY:
T = Teacher
P = Reading Program
S = Student
C = Same for entire class
G = Differentiated for each reading group
I = Individualized

OBJECTIVES	T P S	C G I
INSTRUCTIONAL METHODS	T P S	C G I
MATERIALS AND ACTIVITIES	T P S	C G I
SEQUENCE OF MATERIAL	T P S	C G I
RATE OF PRESENTATION	T P S	C G I
LEARNER ASSESSMENT	T P S	C G I

MATH PROGRAM IMPLEMENTATION

Recent trends for individualizing instruction vary along a continuum from differentiated instruction to totally individualized instruction depending upon the degree to which teacher- and/or student-determined goals and objectives, sequence and pace, materials and methods, activities, interests, and assessment devices are utilized. This chart is designed to provide information regarding your strategy for differentiating instruction in the teaching of math.

Objectives, methods, materials, sequence, rate, and assessment may be defined by either the teacher, the commercial math program being used, or the individual student. Likewise, each of these six categories may be either the same for the whole class, differentiated for each math group, or individualized for each student. Your task is to select from among the three choices in each of the twelve areas the answer which is most representative of the procedural structure of your own instructional program for math. Please provide your answers by circling the appropriate letter in each of the 12 blocks.

KEY:
T = Teacher
P = Math Program
S = Student

C = Same for entire class
G = Differentiated for each math group
I = Individualized

OBJECTIVES	T P S	C G I
INSTRUCTIONAL METHODS	T P S	C G I
MATERIALS AND ACTIVITIES	T P S	C G I
SEQUENCE OF MATERIAL	T P S	C G I
RATE OF PRESENTATION	T P S	C G I
LEARNER ASSESSMENT	T P S	C G I

STUDENT INTERVIEW (SI)

	Yes	No
1. Would you like to have another teacher like _______?	___	___
2. Does _______________ explain things well?	___	___
3. Does ________________ really listen to what you have to say?	___	___
4. Does ________________ give you work that you don't know how to do?	___	___
5. Do you think that you've learned a lot in this class?	___	___
6. Is your classroom usually:		
too noisy	___	___
just right	___	___
too quiet	___	___
for you to do your work?		
7. If you have a question, will ___________ help you?	___	___
8. Does _________________ work with you alone sometimes?	___	___
9. Do you think that ______________ likes you?	___	___
10. Is your classroom generally a pleasant place?	___	___
11. Do you think _______________gives too much work?	___	___
12. Does ________________ encourage you to do your best work?	___	___
13. In ________ class did you have a lot of time with nothing to do?	___	___
14. Have you enjoyed the _____ grade this year?	___	___

Why? or why not?

APPENDIX

Data Collection Schedule
for Classroom Observations

strument	Length of Each Observation (in minutes)	Number of Observations	Total Time (in minutes)	Time Interval (in weeks)
gns of Individualization (SOI)	30	4	120	5
estioning Pattern (QP)	30	4	120	5
tervention Strategy Record (ISR)	42	6	252	4
ademic Learning Time (ALT)	30-60	16	480-600	10
server Rating Scale (ORS)	30-60	20	600-720	15

DESCRIPTIVE TABLES
FOR SPECIFIC TEACHING BEHAVIORS
OF SELECTED EFFECTIVE TEACHERS

Barbara Larrivee Janet Vacca

November 1979

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Preface

In 1978, the Rhode Island College Department of Special Education was awarded a three-year grant from the U.S. Office of Education, Bureau of Education for the Handicapped, Division of Personnel Preparation for the purpose of training regular educators. The ultimate goal of this project is to provide inservice training to regular classroom teachers which will promote the use of teaching behaviors which have been verified to positively effect the special needs child's performance in the regular classroom setting. This Special Project has, in addition to a training focus, a comprehensive research and development component.

The project entails a three-level validation process. The first phase encompasses the identification of those teaching behaviors characteristic of teachers effective with mainstreamed students. Phase two involves the validation of a training package developed specifically to foster the acquisition of those desired teaching behaviors identified in the initial phase. The final phase is intended to validate that changing teacher behaviors in the desired manner will result in the expected positive performance of the mainstreamed child.

The operational plan for the project called initially for the selection of regular classroom teachers who had previously demonstrated their effectiveness with special needs students functioning in the regular classroom setting. Teachers were selected based on the actual performance of special needs students in their classrooms. Students were assessed on a pre-post basis on academic, behavioral, social, and attitudinal variables. A series of criteria were established considering gains made by special needs students as well as gains made by the class at large for selection purposes. From an original pool of thirty-three elementary teachers, twelve teachers were identified as effective.

Subsequently, in an effort to isolate characteristic teaching behaviors of the twelve effective teachers, extensive data were collected in their classrooms. The teaching variables which were studied are shown in Figure 1. A list of the sixteen instruments used to collect the data is provided in Figure 2. Figure 3 shows the data collection schedule which was employed for the classroom observations. Although classroom observations constituted the major data collection scheme, three other modes of data collection were also employed: teacher daily records, teacher self-reports, and teacher and student interviews.

This report is a compilation of tables which represent results of the data collected on over seventy teaching variables. All of the tables report data collected in the effective teachers' classrooms only. On those tables which are broken down by class or teacher, numbers 1 through 5 represent grades one through three; and, numbers 6 through 12 represent grades four through six.

The thirty-one tables in this technical report are organized into four major parts. Part I is comprised of tables 1 through 15 which report results of data collected using observational instruments. Part II is comprised of tables 16 through 19B which report results of data collected using teacher daily records. Part III is comprised of tables 20 through 28 which report results of data collected using teacher self-reports. And, Part IV is comprised of tables 29 through 31 which report results of data collected using interviewing instruments.

Figure 1

Teaching Variables[a]

QUESTIONING STYLE

Volunteer Respondent (QP)
Student Selection (QP)
Narrow Questions (QP)
*Positive Feedback (QP)
*Sustaining Feedback (QP)
*Content Questions (QP)
*Low-order Questions (QP)
*Correct Student Response (QP)
**Criticism of Response (QP)

CLASSROOM CLIMATE

Movement-Free vs. Restricted (SOI)
Affective Environment (TOI)
Physical Environment (CM)
Noise Level Appropriateness (SI)
Non-Permissiveness (ORS)
Controlling Behavior (TOI)
Acceptance of Feelings (ORS)
Awareness of Feelings (ORS)
*Warmth (SI)
*Teacher Responsiveness (ORS)
*Teacher Fairness (ORS)
*Performance Expectation (ORS)
*Relationship with Students (ORS)
*Initiation of Student Contact (ORS)

INDIVIDUALIZATION

Time in Small Groups (SOI)
Time in Large Groups (SOI)
Teacher Time with Individuals (SOI)
Individualization of Work (SOI)
Grouping for Math (BI)
Checking Student Work (ORS)
*Ad Hoc Grouping (CM)
*Instructional Appropriateness (ORS)
*Grouping for Reading (BI)
*Attention to Individual Needs (SI & CM)

CLASSROOM MANAGEMENT

Supportive Response to Conduct Problems (ISI)
Supportive Response to High Severity Behavior(ISI)
Teacher Consistency (ORS)
Use of Praise (ORS)
*Supportive Response to Learning Problems (ISI)
*Supportive Response to Personality Problems (ISI)
*Supportive Response to Low Ability Students (ISI)
*Efficient Use of Time (ORS)
*Total Supportive Response (ISI)
*Task Engagement Feedback (ISR & ISI)
*Variety of Interventions (ISI)
**Need for Discipline (ORS)
**Total Punitive Response (ISI)
**Punitive Intervention (ISR)
**Incidence of Intervention (ISR)

ACADEMIC LEARNING TIME

Allotted Time (DR)
Teacher Directed Time (ALT)
Student Directed Time (ALT)
*Easy Difficulty Level (ALT)
*Engagement Rate (ALT)
*Academic Learning Time (ALT & DR)
**Special Individual Work Time (DR)
**Unassigned Time (DR)
**Teacher Transition Time (ALT)
**Student Transition Time (ALT)
**Waiting-for-Help Time (ALT)
**Off-Task Time (ALT)
**Hard Difficulty Level (ALT)

TEACHING STYLE

Assignment of Tasks (SOI)
Assignment of Homework (CM)
*Teacher Flexibility (TOI)
*Lesson Structure (CM)
*Clarity (SI & ORS)
*Academic Feedback (CM)
*Active Involvement (SOI & ORS)

OPINION AND ATTITUDINAL VARIABLES

Situational Job Satisfaction (JSQ & EDS)
Educational Philosophy (TOI)
*Positive Attitude Toward Mainstreaming (TQM)
*Professional Job Satisfaction (JSQ & EDS)
*Scope of Professional Responsibility (TOI)
*Teacher Self-Perception of Competence (EDS)

[a] Initials following each variable indicate the instrument used.
* High amount characteristic of effective teachers.
** Low amount characteristic of effective teachers.

Figure 2

Project Instruments

Instrument	Code	Data Collection Mode	Code
Signs of Individualization	SOI	Classroom Observation	O
Questioning Patterns	QP	Classroom Observation	O
Academic Learning Time	ALT	Classroom Observation	O
Intervention Strategies Record	ISR	Classroom Observation	O
Observer Rating Scale	ORS	Classroom Observation	O
Daily Record-Reading, Math	DR	Teacher Record	R
Intervention Strategy Inventory	ISI	Teacher Self-Report	S
Classroom Management Questionnaire	CM	Teacher Self-Report	S
Educational Dimension Survey	EDS	Teacher Self Report	S
Job Satisfaction Questionnaire	JSQ	Teacher Self Report	S
Teacher Opinion Inventory	TOI	Teacher Self Report	S
Teacher Questionnaire on Mainstreaming	TQM	Teacher Self Report	S
Philosophy of Education	PE	Teacher Self Report	S
Background Information	BI	Teacher Interview	I
Reading Program Implementation	RPI	Teacher Interview	I
Math Program Implementation	MPI	Teacher Interview	I
Student Interview	SI	Student Inte[illegible]iew	I

Figure 3

Data Collection Schedule for Classroom Observations

Instrument	Length of Each Observation (in minutes)	Number of Observations	Total Time (in minutes)	Time Interval (in weeks)
Signs of Individualization (SOI)	30	4	120	5
Questioning Pattern (QP)	30	4	120	5
Intervention Strategy Record (ISR)	42	6	252	4
Academic Learning Time (ALT)	30-60	16	480-600	10
Observer Rating Scale (ORS)	30-60	20	600-720	15

PART I

TABLES REPORTING RESULTS FROM OBSERVATIONAL DATA

Table 1

Summary Data on The Signs of Individualization (SOI)

Category	Alternative	Content					
		Reading		Math		Total	
		f	%	f	%	f	%
Group structure:	Class as a whole	40	27.8	70	48.6	110	38.2
	Subgroups	84	58.3	63	43.8	147	51.0
	Subgroups & individuals	20	13.9	10	6.9	30	10.4
	Individuals	0	0.0	1	0.7	1	0.3
Number of Subgroups:	One	33	22.9	55	38.2	88	30.6
	Two or three	75	52.1	67	46.5	142	49.3
	Four or five	30	20.8	15	10.4	45	15.6
	Six or more	6	4.2	7	4.9	13	4.5
Teacher works with:	Class as a whole	24	16.7	51	35.4	75	26.0
	Subgroups	100	69.4	69	47.9	169	58.7
	Individuals	20	13.9	23	16.0	43	14.9
	Not involved	0	0.0	1	0.7	1	0.3
Differentiation of Activities:	Class as a whole	31	21.5	66	45.8	97	33.7
	Subgroups	70	48.6	47	32.6	117	40.6
	Subgroups & individuals	43	29.9	31	21.5	74	25.7
	Individuals	0	0.0	0	0.0	0	0.0
Assignment of tasks:	Assigned	111	77.1	127	88.2	238	82.6
	Assigned & selected	33	22.9	15	10.4	48	16.7
	Selected	0	0.0	2	1.4	2	0.7
Movement:	Restricted	51	35.4	58	40.3	109	37.8
	Free	93	64.6	86	59.7	179	62.2

(2)

Table 2

Percentage of Time Spent in SOI Categories by Class

Class	SOI Category [a]													
	Large Group Structure		Small Groups		Working with Individuals		Individually Assigned Activities		Tasks Assigned		Free Movement		Total SOI Score [b]	
	R	M	R	M	R	M	R	M	R	M	R	M	R	M
1	58	100	42	17	8	17	8	0	100	100	58	33	52	41
2	8	100	92	0	8	25	17	0	100	100	50	42	63	42
3	17	92	100	100	0	8	25	8	33	100	83	100	78	69
4	100	100	0	17	58	17	0	17	100	83	17	100	44	49
5	100	92	100	100	8	8	58	50	100	100	100	100	70	72
6	0	50	100	92	8	0	0	0	92	75	100	92	70	62
7	50	42	92	58	0	8	42	25	100	100	50	0	61	53
8	67	25	33	75	0	8	0	0	100	100	17	75	45	59
9	50	67	67	25	50	42	8	8	50	100	100	25	68	50
10	0	100	100	50	0	58	100	0	0	100	100	50	82	51
11	100	100	100	100	0	0	0	50	100	50	0	0	66	72
12	17	50	50	50	25	0	100	100	50	50	100	100	91	87
Mean	47	77	73	57	14	16	30	22	77	88	66	60	66	59

[a] R= Reading; M= Math

[b] Raw score based on item weightings

Table 3

Summary Data on Questioning Patterns (QP)

		Content					
Category	Option	Reading		Math		Total	
		f	%	f	%	f	%
Type	1. content	1717	88.4	1506	86.2	3223	87.3
	2. organizational	140	7.2	193	11.0	333	9.0
	3. non-content	85	4.4	49	2.8	134	3.6
Response level	1. low-narrow	1294	75.4	1335	88.6	2629	81.5
	2. low-open	354	20.6	168	11.2	522	16.2
	3. high-narrow	89	5.2	22	1.5	111	3.4
	4. high-open	4	.2	0	0.0	4	.1
Student selection	1. before-volunteer	15	.9	5	.3	20	.6
	2. before-non volunteer	600	34.9	618	41.0	1218	37.8
	3. after-volunteer	798	46.5	690	45.8	1488	46.2
	4. after-non-volunteer	66	3.8	93	6.2	159	4.9
	5. defined	279	16.2	99	6.6	378	11.7
Response-feedback	1. correct positive	1213	70.6	1074	71.3	2287	71.0
	2. correct neutral	244	14.2	122	8.1	366	11.3
	3. incorrect supportive	235	13.7	270	17.9	505	15.7
	4. incorrect neutral	41	2.4	41	2.7	82	2.5
	5. incorrect critisizing	3	.2	0	0.0	3	.1

Table 4

Percent of Use of Each Questioning Pattern Category from QP by Class

Class	Content			Narrow Question			Low Order			Positive Feedback			Volunteer Selected			Selection After		
	R	M	T	R	M	T	R	M	T	R	M	T	R	M	T	R	M	T
1	87	92	89	85	96	91	98	98	98	81	89	86	67	43	55	68	47	58
2	83	88	85	94	100	97	94	94	94	85	74	80	50	27	39	63	36	50
3	90	90	90	75	100	88	90	99	94	96	98	98	66	56	60	70	65	67
4	97	76	87	99	72	87	100	100	100	34	68	49	3	60	29	3	72	34
5	83	79	81	78	78	77	99	99	99	94	95	95	77	52	64	80	54	64
6	94	89	91	46	96	66	100	100	100	100	95	98	70	34	55	72	38	57
7	89	84	87	92	98	94	100	99	99	89	87	88	13	51	29	14	58	32
8	91	90	91	85	72	80	81	98	89	70	87	77	44	66	52	47	68	54
9	84	88	86	61	98	82	95	98	96	97	99	98	18	48	34	24	57	42
10	85	76	81	78	87	83	98	100	99	88	83	85	39	19	29	39	26	32
11	84	90	87	82	92	88	90	98	94	84	92	88	82	60	69	87	71	78
12	87	91	89	83	71	78	97	99	98	95	94	95	55	54	54	54	55	55
Mean	88	86	87	80	88	84	95	99	97	84	88	86	49	48	47	52	54	52

Table 4A

Percent of Use of Each Response Category and Sustaining Feedback from QP by Class

Class	Response Correct			Response Incorrect			Incorrect Supportive			Incorrect Neutral			Incorrect Criticism			Sustaining Feedback [a]		
	R	M	T	R	M	T	R	M	T	R	M	T	R	M	T	R	M	T
1	80	80	80	20	20	20	89	97	93	11	3	7	0	0	0	63	62	63
2	82	78	80	18	21	20	74	74	74	17	26	22	2	0	1	81	79	80
3	92	80	86	8	21	15	91	93	92	9	7	8	0	0	0	55	40	48
4	78	86	72	23	13	18	91	87	89	6	13	10	1	0	0	91	60	76
5	84	78	81	16	21	19	78	81	80	22	19	21	0	0	0	80	71	76
6	85	84	85	15	15	15	82	82	82	18	18	18	0	0	0	61	86	74
7	93	85	89	8	15	12	88	82	85	13	18	16	0	0	0	84	77	81
8	86	75	81	14	25	20	81	84	83	19	16	18	0	0	0	61	61	61
9	80	79	80	20	21	21	87	97	92	13	3	8	0	0	0	76	73	75
10	61	70	66	39	30	35	79	77	78	21	23	22	0	0	0	76	74	75
11	89	73	81	11	27	19	77	78	78	23	22	23	0	0	0	45	50	48
12	85	79	82	16	21	19	96	90	93	4	10	7	0	0	0	71	78	75
Mean	83	79	80	17	21	19	84	85	85	15	15	15	.3	0	.1	70	68	69

[a] Variable derived by computing the percent of incorrect responses which the teacher followed by another clarifying or "helping" question to the same student.

Table 5A

Percent of Time Spent in Student Directed and Teacher Directed Activities (from ALT) for Reading

Student Directed Activities

Class	Ability									
	Special Needs		Low		Average		High		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	40.5	35	65.7	24	68.6	38	63.0	24	57.8	31
2	68.6	35	44.7	39	64.2	41	80.4	34	64.3	38
3	61.4	38	75.9	29	78.1	22	61.0	36	69.4	31
4	39.3	34	27.4	25	49.1	41	48.3	40	41.0	35
5	54.2	37	52.9	38	73.3	36	73.2	37	63.1	37
6	32.8	33	51.9	37	42.0	36	44.0	39	42.7	35
7	37.6	27	41.2	37	40.6	37	38.0	34	39.3	32
8	54.6	28	47.2	24	63.3	28	49.2	46	53.8	32
9	55.1	41	56.1	39	81.3	32	92.3	8	71.2	35
10	57.7	31	68.0	25	76.6	27	69.6	25	68.3	26
11	48.2	44	50.3	45	42.9	46	46.4	46	47.0	43
12	62.6	39	49.0	30	16.8	21	56.8	49	46.7	39
Mean	50.6	35	52.6	34	58.6	37	60.0	38	55.4	36

Teacher Directed Activities

Class	Ability									
	Special Needs		Low		Average		High		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	58.7	35	33.1	23	30.1	37	35.9	22	41.1	31
2	30.9	34	54.9	39	35.4	42	19.2	34	35.2	38
3	38.2	38	23.7	28	21.1	22	38.1	36	30.0	31
4	60.2	33	72.1	24	50.4	40	51.2	40	58.5	34
5	44.9	36	46.1	37	25.8	34	25.7	36	36.0	35
6	66.1	32	46.3	39	58.0	36	54.2	39	56.0	36
7	62.4	27	58.8	37	59.4	37	62.0	34	60.7	32
8	38.4	30	44.8	28	30.7	31	43.3	41	39.1	32
9	42.1	41	42.0	39	16.9	31	5.7	9	26.7	35
10	41.6	32	30.7	26	21.7	26	27,3	21	30.0	26
11	50.6	45	48.5	46	53.7	46	52.4	45	51.3	43
12	37.4	39	51.0	30	83.2	21	43.2	49	53.3	39
Mean	48.1	35	46.0	34	39.9	38	38.3	37	43.1	36

Table 5B

Percent of Time Spent in Student Directed and Teacher Directed Activities (from ALT) for Math

Student Directed Activities

Class	Ability									
	Special Needs		Low		Average		High		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	24.4	28	36.8	28	43.8	35	40.3	34	36.1	30
2	67.8	23	70.0	22	76.3	20	81.9	16	73.9	20
3	49.8	34	50.0	34	52.3	38	64.4	26	54.1	32
4	57.9	35	54.9	32	59.1	35	50.0	40	55.5	34
5	60.6	38	55.5	40	75.8	35	51.7	45	61.1	39
6	33.5	35	26.3	35	66.3	38	75.2	31	50.3	39
7	35.3	45	53.8	43	47.6	41	81.7	34	56.6	41
8	46.4	31	46.7	32	68.4	38	69.3	39	57.7	35
9	42.1	28	38.4	27	48.7	34	47.4	33	44.3	29
10	38.6	42	44.1	39	48.5	45	51.9	46	46.0	41
11	38.4	41	32.9	41	36.8	38	57.7	42	40.9	40
12	42.9	53	50.0	53	62.9	45	38.5	50	48.3	49
Mean	45.1	36	46.8	36	57.3	37	58.6	38	52.0	37

Teacher Directed Activities

Class	Ability									
	Special Needs		Low		Average		High		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	71.4	26	60.3	25	52.9	33	56.8	32	60.6	28
2	32.2	23	30.0	22	23.8	20	18.1	16	26.1	20
3	48.6	33	48.3	34	45.6	39	33.6	26	44.0	32
4	41.3	36	44.2	32	40.1	36	49.2	41	43.7	35
5	38.9	38	42.7	41	23.7	35	47.8	45	38.1	39
6	65.8	34	58.6	42	20.5	29	23.4	31	42.2	38
7	64.7	45	46.2	43	52.4	41	18.3	34	43.4	41
8	50.7	30	50.4	32	28.7	36	27.8	37	39.4	34
9	55.4	29	58.8	28	48.8	34	50.2	34	53.2	30
10	59.0	40	53.4	38	49.9	43	45.9	44	51.8	40
11	60.7	41	66.8	41	63.2	38	28.0	36	55.5	40
12	57.1	53	46.9	51	36.0	46	54.5	45	48.8	47
Mean	53.5	36	50.5	35	40.4	37	38.4	37	45.6	37

Table 6A

Proportion of Total Time[a] Spent at Each Difficulty Level (from ALT) by Class for Reading

Class	Difficulty Level														
	Easy					Medium					Hard				
	SN[b]	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	70.5	72.1	93.4	98.6	82.4	29.5	27.9	6.6	1.4	17.6	0.0	0.0	0.0	0.0	0.0
2	69.7	79.2	87.5	87.5	81.3	20.4	13.3	0.0	0.0	12.4	7.0	6.6	0.0	0.0	3.2
3	87.0	91.9	100.0	100.0	94.5	13.0	8.1	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0
4	72.8	83.9	84.9	95.8	84.4	25.0	14.8	13.8	2.8	14.1	0.0	0.0	0.0	0.0	0.0
5	100.0	86.7	96.2	100.0	95.6	0.0	13.3	3.8	0.0	4.4	0.0	0.0	0.0	0.0	0.0
6	86.1	92.1	96.7	99.0	93.2	11.3	6.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0
7	100.0	100.0	100.0	99.6	99.9	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0
8	82.7	73.5	80.9	99.2	84.4	16.5	24.6	15.8	0.8	14.1	0.0	1.0	0.0	0.0	0.2
9	82.1	66.0	92.5	99.7	85.1	17.6	32.8	7.5	0.0	14.5	0.0	0.8	0.0	0.0	0.2
10	64.8	94.0	98.9	98.0	89.7	35.2	6.0	1.1	2.0	10.3	0.0	0.0	0.0	0.0	0.0
11	95.1	100.0	98.7	100.0	98.4	2.2	0.0	1.3	0.0	0.9	2.7	0.0	0.0	0.0	0.7
12	100.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean	84.3	86.6	94.0	98.1	90.7	14.2	12.2	4.2	0.6	8.2	0.8	0.7	0.0	0.0	0.4

[a] Includes all time, i.e., engaged plus non-engaged

[b] SN= Special Needs; L= Low Ability; A= Average Ability; H= High Ability

Table 6B

Proportion of Total Time[a] Spent at Each Difficulty Level (from ALT) by Class for Math

Class	Difficulty Level														
	Easy					Medium					Hard				
	SN[b]	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	84.6	80.7	99.0	99.2	90.6	14.2	17.6	1.0	0.8	8.6	1.3	1.7	0.0	0.0	0.8
2	74.8	76.7	90.6	95.9	84.5	19.6	10.8	9.4	4.1	10.9	5.6	12.5	0.0	0.0	4.6
3	72.9	85.0	95.2	100.0	82.3	27.1	15.0	4.8	0.0	11.7	0.0	0.0	0.0	0.0	0.0
4	59.1	86.6	87.3	85.8	79.7	30.1	10.7	9.9	11.4	15.5	8.1	0.0	0.0	0.0	2.0
5	87.3	71.1	86.7	96.2	85.8	12.2	13.4	13.3	3.8	10.6	0.0	0.0	0.0	0.0	0.0
6	73.5	75.3	86.4	98.4	83.2	24.8	23.8	11.8	0.0	15.3	0.0	0.0	0.0	0.0	0.0
7	100.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	68.1	67.6	95.7	94.2	81.4	29.8	32.0	3.9	5.8	17.9	1.8	0.0	0.0	0.0	0.5
9	65.2	70.9	95.7	100.0	82.8	34.4	28.7	3.9	0.0	16.9	0.0	0.0	0.0	0.0	0.0
10	65.7	76.3	87.3	96.4	81.9	34.3	23.0	12.7	3.6	17.9	0.0	0.4	0.0	0.0	0.1
11	92.1	94.7	100.0	85.7	93.3	7.9	0.0	0.0	0.0	2.0	0.0	5.0	0.0	0.0	1.3
12	81.4	100.0	98.9	84.4	91.2	18.6	0.0	0.0	12.5	7.8	0.0	0.0	0.0	0.0	0.0
Mean	76.1	82.2	93.5	94.6	86.7	22.3	14.5	6.0	3.7	11.6	1.4	1.7	0.0	0.0	0.8

[a] Includes all time, i.e., engaged plus non-engaged

[b] SN= Special Needs; L= Low Ability; A= Average Ability; H= High Ability

Table 7A

Proportion of Engaged and Non-Engaged Time (from ALT) by Class and Ability for Reading

Class	Engaged					Non-Engaged														
						Student Transition					Waiting for Help					Off - Task				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	76.1	79.8	77.3	88.9	80.4	5.6	6.9	6.3	4.7	5.8	0.0	0.0	0.5	0.0	0.1	18.3	13.6	15.9	6.4	13.7
2	62.4	93.0	95.7	97.6	88.0	5.8	1.2	3.4	1.8	3.0	1.6	2.2	0.0	0.0	0.9	30.2	3.6	0.9	0.6	8.1
3	78.5	69.3	83.7	93.2	80.8	12.4	10.2	4.3	3.8	7.8	0.9	0.0	0.5	0.6	0.5	8.2	20.4	11.5	2.4	10.9
4	87.0	95.0	96.1	96.8	93.7	4.4	0.9	1.6	1.7	2.1	0.8	0.3	0.8	0.0	0.5	7.3	3.3	1.0	1.0	3.2
5	86.8	79.7	81.5	91.9	84.8	5.3	4.3	9.6	4.1	5.9	0.5	0.0	0.0	0.0	0.1	7.4	16.0	8.9	3.9	9.2
6	95.6	78.4	90.2	92.8	89.2	2.3	5.1	3.5	3.2	3.5	0.0	0.0	0.0	0.3	0.1	2.1	16.5	6.3	3.6	7.2
7	90.0	93.8	87.0	81.5	88.0	0.4	4.6	2.9	2.4	2.5	0.0	0.0	0.0	0.0	0.0	5.8	8.3	15.5	0.3	7.5
8	87.0	82.8	78.6	93.7	85.6	7.1	6.8	9.3	2.8	6.5	0.0	0.4	0.0	0.0	0.1	5.1	9.0	11.7	3.5	7.3
9	86.0	77.1	85.0	79.2	81.8	3.5	4.9	3.8	6.1	4.6	1.5	2.2	0.7	0.4	1.2	8.7	15.4	10.5	14.0	12.2
10	64.9	64.4	85.5	74.1	72.5	4.6	3.3	7.3	2.8	4.5	0.5	0.4	0.7	0.0	0.4	30.0	31.9	6.4	23.1	22.6
11	78.0	84.4	84.4	95.0	85.4	3.0	11.8	5.0	3.8	5.9	0.0	0.0	0.0	0.0	0.0	19.1	3.8	10.6	1.3	8.7
12	78.4	89.1	98.1	92.9	89.7	4.1	4.3	0.0	6.4	3.8	0.0	0.0	0.0	0.0	0.0	17.6	6.6	1.9	0.7	6.5
Mean	81.6	81.5	86.4	91.1	85.2	4.9	5.3	4.8	3.6	4.7	0.5	0.5	0.3	0.1	0.3	12.9	12.5	8.5	5.1	9.7

Table 7B

Proportion of Engaged and Non-Engaged Time (from ALT) by Class and Ability for Math

Class	Engaged					Non-Engaged														
						Student Transition					Waiting for Help					Off - Task				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	76.1	76.3	87.1	92.0	82.8	5.3	9.1	7.2	1.9	5.8	0.0	2.4	0.8	0.8	1.0	18.6	12.1	4.8	5.3	10.4
2	71.8	82.7	92.6	81.4	82.5	6.2	6.8	3.7	8.4	6.2	2.0	0.6	0.6	1.4	1.1	20.0	9.9	3.0	8.8	10.2
3	79.0	84.7	82.2	87.3	83.3	10.4	7.1	4.4	3.1	6.2	0.5	1.0	1.6	0.0	0.8	10.1	7.2	11.8	9.7	9.7
4	77.9	88.5	92.8	90.6	87.4	8.0	5.6	4.0	5.4	5.8	0.0	0.8	0.3	0.0	0.3	14.1	5.1	2.8	4.0	6.5
5	79.5	73.2	79.1	88.2	80.2	5.1	5.6	3.7	4.6	4.7	0.5	0.0	0.0	0.0	0.1	14.9	6.9	17.1	7.2	11.7
6	95.9	94.2	81.0	90.3	90.2	2.6	1.4	6.5	3.2	3.5	0.0	0.5	0.0	0.0	0.1	1.5	3.9	12.4	5.9	6.0
7	88.9	68.5	70.3	91.9	78.5	0.0	4.5	0.4	5.3	2.8	0.7	0.0	2.0	0.4	0.9	10.3	27.0	27.3	2.4	17.9
8	89.2	95.1	93.0	93.6	92.7	4.9	3.0	2.2	4.8	3.7	0.0	0.0	0.0	0.0	0.0	5.9	1.8	4.8	1.6	3.5
9	92.0	83.2	95.0	88.8	[illegible]	4.0	3.6	3.0	4.5	3.7	1.7	1.4	0.0	0.4	0.9	2.4	11.8	2.0	6.3	5.4
10	57.2	65.2	61.9	74.2	64.9	3.4	4.8	4.0	4.7	4.2	1.9	2.8	1.0	1.4	1.8	37.6	26.9	33.1	19.7	29.0
11	86.1	88.1	85.7	81.2	85.4	2.3	0.8	4.2	2.6	2.5	0.0	1.1	1.8	0.7	0.9	11.6	9.6	8.3	1.2	7.9
12	83.9	95.9	90.4	95.2	91.6	1.9	0.5	0.5	2.3	1.3	0.0	0.0	0.0	2.0	0.5	0.0	3.6	9.1	0.5	3.2
Mean	81.5	83.1	84.2	88.0	84.2	4.7	4.4	3.7	4.2	4.2	0.6	0.9	0.7	0.6	0.7	12.1	10.4	11.5	6.1	10.1

Table 8A

Minutes and Percent of Teacher Transition Time
(from ALT) by Class for Reading

Class	Ability									
	Special Needs		Low		Average		High		Total	
	Min	%	Min	%	Min	%	Min	%	Min	%
1	1.4	5.2	0.9	2.7	1.8	5.4	0.7	2.1	1.2	3.9
2	0.6	1.8	0.5	1.6	0.8	2.0	0.0	0.0	0.5	1.3
3	0.6	2.0	0.8	2.3	1.0	3.0	0.9	4.0	0.8	2.8
4	1.9	5.6	1.9	5.5	0.8	2.4	1.1	3.5	1.4	4.3
5	1.4	4.2	1.6	5.0	1.1	3.3	0.6	1.7	1.2	3.6
6	0.5	1.7	0.8	2.2	0.5	2.0	0.5	1.4	0.6	1.8
7	1.3	4.2	0.7	2.1	0.9	2.7	1.6	5.5	1.1	3.7
8	1.3	3.8	1.3	3.9	1.9	6.9	1.1	4.0	1.4	4.7
9	0.8	2.4	0.5	1.6	1.1	3.6	0.4	1.1	0.7	2.2
10	1.1	3.6	0.8	2.4	0.6	2.1	0.4	1.4	0.7	2.3
11	0.3	0.9	0.4	0.8	1.8	6.1	0.1	0.4	0.6	2.0
12	1.0	6.3	0.7	1.9	0.9	3.4	0.9	2.0	0.9	3.3
Mean	1.0	3.5	0.9	2.7	1.1	3.6	0.7	2.3	0.9	3.0

Table 8B

Minutes and Percent of Teacher Transition Time
(from ALT) by Class for Math

Class	Ability									
	Special Needs		Low		Average		High		Total	
	Min	%	Min	%	Min	%	Min	%	Min	%
1	3.1	12.9	3.1	11.6	2.3	8.6	2.1	7.9	2.7	10.3
2	0.7	2.8	0.6	2.5	0.5	2.0	0.7	2.9	0.6	2.5
3	2.5	9.6	2.3	8.1	2.4	8.0	1.8	6.0	2.2	7.9
4	1.4	4.4	0.9	3.0	1.1	3.7	1.3	4.1	1.2	3.8
5	1.0	3.3	1.1	3.8	0.8	2.7	0.6	2.1	0.9	3.0
6	1.4	4.0	1.1	3.3	0.5	1.6	0.9	2.7	1.0	2.9
7	0.3	0.7	1.0	3.6	0.4	1.2	0.3	0.8	0.5	1.7
8	0.8	2.4	0.8	2.4	0.6	2.1	0.3	0.8	0.6	1.9
9	1.1	3.7	1.4	4.5	0.8	2.4	1.0	3.2	1.1	3.4
10	1.0	3.8	1.3	4.6	0.9	3.4	1.1	4.2	1.1	4.0
11	0.4	1.0	1.0	2.6	0.6	1.9	0.0	0.0	0.5	1.4
12	0.0	0.0	0.0	0.0	0.1	0.5	0.3	1.0	0.1	0.4
Mean	1.2	4.3	1.2	4.2	0.9	3.1	0.9	3.0	1.0	3.7

Table 9A

Percent of Engaged Time Spent in Teacher Directed and Student Directed Activities (from ALT) for Reading

	Teacher Directed									
	Ability									
Class	Special Needs		Low		Average		High		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	46.9	34	23.5	21	23.2	34	33.9	21	36.3	28
2	27.2	30	52.7	37	34.1	42	19.2	34	33.5	37
3	27.8	35	19.9	25	16.5	21	41.9	42	26.0	31
4	58.0	32	70.4	24	49.5	40	50.5	39	57.1	34
5	41.6	36	41.5	36	23.1	33	25.2	36	33.1	35
6	64.8	33	43.3	37	54.5	36	53.9	40	54.1	36
7	59.3	26	54.2	35	55.7	36	60.2	34	57.5	31
8	37.2	32	46.5	27	30.1	35	46.9	47	40.0	35
9	41.8	41	40.1	39	14.7	31	4.8	7	25.3	35
10	30.0	26	26.2	23	20.2	23	20.5	16	24.0	21
11	47.3	43	48.7	46	53.0	45	53.0	45	50.5	43
12	45.1	46	50.1	30	88.6	20	43.4	49	56.3	41
Mean	44.4	35	43.4	33	38.6	38	37.9	38	41.1	36

	Student Directed									
	Ability									
Class	Special Needs		Low		Average		High		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	27.3	29	51.3	18	45.1	34	55.0	26	44.1	28
2	34.9	22	40.3	39	61.6	40	77.9	34	54.3	37
3	50.7	30	49.4	22	67.2	20	51.2	36	54.7	27
4	29.1	24	24.5	21	46.5	39	46.3	38	36.6	32
5	45.2	30	38.2	29	58.4	29	66.7	36	51.7	31
6	30.7	31	35.0	22	35.7	33	38.9	35	35.1	29
7	34.5	20	32.8	37	25.8	30	37.1	32	32.5	29
8	49.8	29	36.3	25	48.5	31	46.8	43	45.7	32
9	44.2	37	37.1	30	70.2	27	74.4	16	56.5	32
10	34.8	20	38.2	17	65.3	25	53.6	23	48.4	24
11	30.7	30	35.7	35	31.3	38	42.0	40	34.9	34
12	33.2	31	39.0	24	9.5	18	49.5	44	33.4	34
Mean	37.2	28	38.1	27	47.8	34	53.2	35	44.1	32

Table 9B

Percent of Engaged Time Spent in Teacher Directed and Student Directed Activities (from ALT) for Math

	Teacher Directed									
	Ability									
Class	Special Needs		Low		Average		High		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	59.0	27	49.5	26	50.6	35	53.0	33	53.1	29
2	27.2	22	27.6	19	21.9	18	15.5	12	23.2	18
3	43.0	32	41.5	39	39.6	34	30.0	26	38.5	32
4	37.3	35	41.6	30	37.3	34	46.8	40	40.7	33
5	34.4	37	39.3	39	20.2	32	44.9	43	34.5	37
6	65.0	34	61.7	35	26.4	30	22.2	32	43.9	37
7	56.0	44	41.8	38	49.6	42	17.8	32	40.0	39
8	51.7	33	49.1	33	28.1	38	28.9	39	39.4	36
9	53.4	29	52.4	26	47.1	34	45.6	33	49.7	29
10	34.3	24	36.9	25	37.7	32	35.7	34	36.2	28
11	60.9	41	66.3	41	62.0	38	28.2	36	55.2	40
12	57.1	53	50.0	53	35.7	46	54.5	45	49.5	48
Mean	48.2	35	46.4	34	37.9	35	35.8	35	42.0	35

	Student Directed									
	Ability									
Class	Special Needs		Low		Average		High		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	17.2	21	26.9	23	36.5	31	39.0	33	29.7	27
2	44.6	16	55.0	20	70.7	25	65.9	16	59.3	21
3	36.0	35	43.2	34	42.7	34	57.3	23	44.8	31
4	40.5	26	46.9	29	55.5	36	43.9	37	46.7	31
5	45.1	27	33.9	36	59.0	30	43.4	40	45.7	33
6	30.9	33	32.4	33	54.6	24	68.1	29	46.3	32
7	32.9	46	26.7	22	20.6	28	74.0	31	38.5	36
8	37.5	29	46.0	34	64.9	37	64.8	36	53.3	35
9	38.6	28	30.8	24	47.9	34	43.2	32	40.3	29
10	22.9	29	28.2	25	24.2	22	38.5	33	28.7	27
11	25.2	33	21.9	27	23.6	27	53.0	40	30.2	33
12	26.7	46	45.9	50	53.6	40	33.7	45	40.0	44
Mean	33.2	30	36.7	31	46.2	33	51.6	34	42.0	33

Table 10A

Percent of Time Spent at Each Difficulty Level by Engagement (from ALT) by Class for Reading

Class	Engaged Time														
	Easy Difficulty					Medium Difficulty					Hard Difficulty				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	51.1	54.6	68.7	87.4	65.0	25.0	25.2	8.6	1.5	15.4	0.0	0.0	0.0	0.0	0.0
2	40.4	77.1	84.2	85.4	72.8	8.4	0.9	0.0	0.0	2.1	5.0	4.1	0.0	0.0	2.2
3	67.4	63.6	83.7	93.2	76.4	11.1	5.8	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0
4	66.8	82.4	83.6	93.9	81.7	20.3	12.6	12.4	2.8	12.0	0.0	0.0	0.0	0.0	0.0
5	86.8	67.4	78.1	91.9	80.7	0.0	12.3	3.4	0.0	4.1	0.0	0.0	0.0	0.0	0.0
6	83.8	73.7	89.5	92.8	84.7	11.8	4.7	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0
7	93.8	87.0	81.5	96.8	89.9	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0
8	70.7	59.7	62.4	92.9	71.8	16.3	23.1	16.2	0.8	13.8	0.0	0.0	0.0	0.0	0.0
9	71.6	51.2	79.3	79.2	70.3	14.3	25.0	5.7	0.0	11.3	0.0	0.9	0.0	0.0	0.2
10	44.4	62.3	84.5	72.1	66.5	20.5	2.2	1.1	2.0	6.0	0.0	0.0	0.0	0.0	0.0
11	72.9	84.4	83.1	95.0	83.8	2.3	0.0	1.3	0.0	0.9	2.8	0.0	0.0	0.0	0.7
12	78.4	89.1	98.1	92.9	89.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean	69.5	71.0	81.2	89.4	77.8	10.9	9.2	4.1	0.6	6.2	0.6	0.4	0.0	0.0	0.3

Class	Non-Engaged Time														
	Easy Difficulty					Medium Difficulty					Hard Difficulty				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	20.2	18.4	20.9	11.1	17.7	3.7	1.8	1.8	0.0	1.9	0.0	0.0	0.0	0.0	0.0
2	29.0	2.5	3.3	2.1	8.6	1.1	0.5	0.0	0.0	0.4	1.8	2.5	0.0	0.0	1.1
3	19.4	28.2	16.3	6.8	18.0	2.2	2.5	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0
4	5.9	2.0	1.7	2.7	3.1	5.7	2.5	1.7	0.0	2.5	0.0	0.0	0.0	0.0	0.0
5	13.2	19.0	18.0	8.1	14.8	0.0	1.3	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0
6	2.8	19.2	8.4	6.2	9.2	0.0	1.6	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
7	6.2	13.0	18.5	2.7	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	11.3	13.2	18.0	6.3	12.2	0.8	2.0	0.0	0.0	0.7	0.0	1.0	0.0	0.0	0.2
9	11.1	15.5	15.0	20.5	15.5	2.5	7.1	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0
10	20.1	31.3	14.5	25.9	23.0	15.0	4.3	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0
11	22.0	15.6	15.6	5.0	14.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	21.6	10.9	1.9	7.1	10.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean	15.0	15.8	12.8	8.7	13.1	2.5	2.0	0.3	0.0	1.2	0.1	0.3	0.0	0.0	0.1

Table 10B

Percent of Time Spent at Each Difficulty Level by Engagement (from ALT) by Class for Math

Class	Engaged Time														
	Easy Difficulty					Medium Difficulty					Hard Difficulty				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	63.1	61.1	86.0	91.2	75.0	12.2	13.4	1.1	0.8	7.1	0.9	1.9	0.0	0.0	0.7
2	55.5	65.1	82.9	77.7	70.5	13.6	9.1	9.7	3.7	9.0	2.7	8.5	0.0	0.0	2.9
3	55.3	70.2	78.6	87.3	72.9	23.6	14.5	3.6	0.0	10.4	0.0	0.0	0.0	0.0	0.0
4	51.7	79.6	83.4	80.7	73.9	20.4	8.8	9.4	9.9	12.1	5.8	0.0	0.0	0.0	1.4
5	70.8	59.7	68.3	84.4	71.2	8.6	12.9	10.8	3.8	8.9	0.0	0.0	0.0	0.0	0.0
6	70.3	70.4	71.0	90.3	75.2	25.6	23.7	10.1	0.0	15.0	0.0	0.0	0.0	0.0	0.0
7	88.9	68.5	70.3	91.9	78.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	61.9	62.7	88.9	88.1	75.4	26.2	32.5	4.0	5.6	17.1	1.1	0.0	0.0	0.0	0.3
9	59.7	59.5	91.0	88.8	74.8	32.3	23.7	4.0	0.0	15.2	0.0	0.0	0.0	0.0	0.0
10	39.5	48.8	50.0	71.8	52.9	17.7	15.9	11.9	2.4	11.8	0.0	0.5	0.0	0.0	0.1
11	81.9	84.6	85.7	81.2	83.4	4.1	0.0	0.0	0.0	1.1	0.0	3.5	0.0	0.0	0.9
12	81.4	95.9	89.3	79.6	86.6	2.5	0.0	0.0	12.5	3.9	0.0	0.0	0.0	0.0	0.0
Mean	64.1	69.0	78.6	84.3	74.1	16.4	12.8	5.6	3.4	9.5	0.9	1.2	0.0	0.0	0.5

Class	Non-Engaged Time														
	Easy Difficulty					Medium Difficulty					Hard Difficulty				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	21.1	19.7	12.9	8.0	15.5	2.4	4.0	0.0	0.0	1.6	0.5	0.0	0.0	0.0	0.1
2	19.1	11.4	7.4	18.1	13.7	5.8	1.9	0.0	0.5	2.0	3.3	4.0	0.0	0.0	1.8
3	17.5	14.5	16.7	12.7	15.4	3.6	0.8	1.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0
4	7.1	7.1	3.7	5.3	5.8	10.4	2.2	1.2	1.8	3.9	2.4	0.0	0.0	0.0	0.6
5	17.3	11.7	18.4	11.8	14.9	2.6	0.8	2.5	0.0	1.5	0.0	0.0	0.0	0.0	0.0
6	2.4	4.0	16.3	9.0	8.0	0.0	0.9	1.7	0.0	0.7	0.0	0.0	0.0	0.0	0.0
7	11.1	31.5	29.7	8.1	21.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	6.6	4.9	7.0	6.4	6.2	3.4	0.0	0.0	0.0	0.9	0.8	0.0	0.0	0.0	0.2
9	5.9	10.8	5.0	11.2	8.0	2.1	5.9	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0
10	24.6	26.0	36.1	24.8	28.0	18.2	8.5	2.0	1.0	7.1	0.0	0.0	0.0	0.0	0.0
11	10.1	9.7	14.3	4.5	9.8	3.9	0.0	0.0	0.0	1.0	0.0	1.8	0.0	0.0	0.5
12	0.0	4.1	9.6	4.8	4.6	1.9	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Mean	11.8	12.9	14.8	10.4	12.5	4.6	2.1	0.7	0.3	1.9	0.6	0.5	0.0	0.0	0.3

Table 11A

Percent of Engaged Time Spent at Each Difficulty Level (from ALT) by Class for Reading

Class	Easy					Medium					Hard				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	69.3	71.0	89.2	98.4	81.5	30.7	29.0	10.8	1.6	18.5	0.0	0.0	0.0	0.0	0.0
2	69.7	81.3	87.5	87.5	81.9	24.1	1.1	0.0	0.0	6.3	5.9	5.1	0.0	0.0	2.6
3	85.6	91.9	100.0	100.0	94.2	14.4	8.1	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0
4	76.3	86.0	86.4	96.9	86.4	23.7	14.0	13.6	3.1	13.6	0.0	0.0	0.0	0.0	0.0
5	100.0	86.3	96.3	100.0	95.5	0.0	13.7	3.7	0.0	4.5	0.0	0.0	0.0	0.0	0.0
6	87.8	94.4	99.2	100.0	95.1	12.2	5.6	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0
7	100.0	100.0	100.0	99.5	99.9	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0
8	82.8	72.6	80.7	99.2	84.2	17.2	27.4	19.3	0.8	15.8	0.0	0.0	0.0	0.0	0.0
9	81.9	66.0	93.9	100.0	85.4	18.1	33.0	6.1	0.0	14.3	0.0	1.0	0.0	0.0	0.3
10	66.9	95.5	98.8	97.5	90.4	33.1	4.5	1.2	2.5	9.6	0.0	0.0	0.0	0.0	0.0
11	94.1	100.0	98.4	100.0	98.1	3.1	0.0	1.6	0.0	1.2	2.8	0.0	0.0	0.0	0.7
12	100.1	100.0	100.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean	84.7	87.1	94.1	98.2	91.0	14.7	11.2	4.8	0.7	7.9	0.7	0.5	0.0	0.0	0.3

Table 11B

Percent of Engaged Time Spent at Each Difficulty Level (from ALT) by Class for Math

Class	Difficulty Level														
	Easy					Medium					Hard				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	83.2	79.9	98.8	99.1	90.0	15.6	18.1	1.2	0.9	9.2	1.1	2.0	0.0	0.0	0.8
2	77.2	77.0	90.3	95.5	84.9	19.0	10.5	9.7	4.5	10.9	3.8	12.5	0.0	0.0	4.2
3	71.1	83.6	95.4	100.0	87.5	28.9	16.4	4.6	0.0	12.5	0.0	0.0	0.0	0.0	0.0
4	62.3	89.4	88.9	88.3	82.2	28.8	10.6	11.1	11.7	15.5	8.9	0.0	0.0	0.0	2.2
5	87.7	69.2	86.4	96.2	85.4	12.3	15.7	13.6	3.8	11.2	0.0	0.0	0.0	0.0	0.0
6	73.5	74.4	88.3	100.0	83.8	26.5	25.6	11.7	0.0	16.2	0.0	0.0	0.0	0.0	0.0
7	100.0	100.0	87.5	100.0	96.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	66.8	65.9	95.6	94.4	80.7	31.5	34.1	4.4	5.6	18.9	1.7	0.0	0.0	0.0	0.4
9	64.2	69.0	95.7	100.0	82.1	35.8	31.0	4.3	0.0	17.9	0.0	0.0	0.0	0.0	0.0
10	64.2	71.2	85.2	97.0	79.9	35.8	28.1	14.8	3.0	19.9	0.0	0.7	0.0	0.0	0.2
11	95.1	95.9	100.0	85.7	94.5	4.9	0.0	0.0	0.0	1.3	0.0	4.1	0.0	0.0	1.1
12	82.9	100.0	98.3	84.4	91.4	2.9	0.0	0.0	12.5	4.0	0.0	0.0	0.0	0.0	0.0
Mean	76.4	81.4	92.4	95.0	86.4	21.1	15.7	6.4	3.6	11.6	1.4	1.7	0.0	0.0	0.8

Table 12A

Academic Learning Time[a] by Class and Ability for Reading

Class	Allotted Time (AT)					Engagement Rate (ER)					Proportion of Time at Easy Difficulty Level (PE)					Academic Learning Time (ALT)				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	119	143	141	130	133	73.6	79.8	72.9	87.0	78.3	86.4	72.1	92.1	98.3	87.2	74.4	78.7	92.9	111.2	89.3
2	93	91	89	90	91	62.4	93.0	95.7	97.6	87.2	69.7	79.2	87.5	87.5	81.0	37.2	67.3	70.5	70.9	61.5
3	152	154	154	153	153	78.5	69.3	83.7	93.2	81.2	87.0	91.9	100.0	100.0	94.7	103.9	99.7	131.0	142.8	119.4
4	151	156	154	152	153	87.0	95.0	96.7	96.8	93.9	72.8	83.9	84.9	95.8	84.4	88.3	110.8	116.9	139.8	114.0
5	151	151	151	150	151	86.8	79.7	81.5	91.9	85.0	100.0	86.7	96.2	100.0	95.7	130.7	100.6	116.8	138.0	121.5
6	112	110	105	113	110	95.6	78.4	90.2	92.8	89.3	86.1	92.1	96.7	99.0	93.5	89.6	78.8	92.3	104.1	91.2
7	129	125	132	132	130	93.8	87.1	81.5	97.3	89.9	100.0	100.0	100.0	100.0	100.0	120.6	107.9	104.6	127.8	92.7
8	110	110	109	119	112	88.0	82.8	78.6	92.8	85.6	82.7	73.5	80.9	99.1	84.1	76.9	68.7	70.7	109.6	81.5
9	116	116	116	116	116	86.0	77.1	85.0	79.2	81.8	82.1	66.0	92.5	99.7	85.1	82.9	59.5	90.3	91.2	81.0
10	112	112	111	111	112	64.9	64.4	85.5	74.1	72.2	64.8	94.0	98.9	98.0	88.9	45.3	68.3	95.8	80.7	72.5
11	135	135	135	133	135	77.7	92.2	82.1	95.7	86.9	94.4	100.0	98.5	100.0	98.2	98.1	124.5	109.3	127.1	114.8
12	81	88	100	79	87	78.4	89.1	98.1	92.9	89.6	100.0	100.0	100.0	100.0	100.0	63.7	78.3	98.2	73.6	78.5
Mean	122	124	125	123	123	81.0	82.3	85.9	91.0	85.0	85.5	86.6	94.0	98.1	91.1	84.3	86.9	99.1	109.7	95.0

Table 12B

Academic Learning Time[a] by Class and Ability for Math

Class	Allotted Time (AT)					Engagement Rate (ER)					Proportion of Time at Easy Difficulty Level (PE)					Academic Learning Time (ALT)				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	30	45	43	45	41	74.5	76.3	87.2	92.0	82.5	82.4	80.7	99.1	99.2	90.4	18.3	26.9	36.7	41.0	30.7
2	40	38	38	37	38	71.8	82.7	92.7	81.4	82.2	74.8	76.7	90.6	95.9	84.5	20.8	25.0	31.3	28.0	26.3
3	60	58	58	58	58	79.0	84.8	82.2	87.3	83.3	72.9	85.0	95.2	100.0	88.3	34.6	41.8	44.9	51.0	43.1
4	52	51	52	51	52	77.9	88.5	92.8	90.6	87.5	59.1	86.6	87.3	85.8	79.7	25.2	40.0	43.3	39.8	37.1
5	60	60	60	60	60	79.5	73.2	79.1	88.2	80.0	87.3	71.1	86.7	96.2	85.3	42.2	36.7	41.4	50.6	42.7
6	60	57	60	59	59	95.9	94.2	81.0	90.3	90.4	73.5	75.3	86.4	98.4	83.4	42.3	40.4	41.4	52.8	44.2
7	60	60	60	60	60	88.9	68.5	70.3	91.9	79.9	100.0	100.0	100.0	100.0	100.0	53.4	41.1	42.2	55.1	48.0
8	58	57	57	59	58	89.2	95.1	93.0	93.6	92.7	68.1	67.6	95.7	94.2	81.4	37.3	36.8	51.3	50.9	44.1
9	58	58	58	58	58	92.0	83.2	95.0	88.8	89.8	65.2	70.9	95.7	100.0	83.0	35.1	35.3	52.7	51.1	43.6
10	66	61	61	61	62	57.2	65.2	61.9	74.2	64.6	65.7	76.3	87.3	96.4	81.4	25.5	31.0	31.7	43.6	33.0
11	60	60	60	60	60	86.1	88.1	85.7	81.2	85.3	92.1	94.7	100.0	85.7	93.1	47.7	50.1	51.4	48.7	49.5
12	59	53	50	49	53	97.4	95.4	91.6	95.2	94.9	93.9	100.0	98.7	84.4	94.3	53.1	51.3	44.3	38.3	46.8
Mean	55	55	55	55	55	82.4	82.9	84.4	87.9	84.4	77.9	82.1	93.6	94.7	87.1	36.3	38.0	42.7	45.9	40.7

[a] Academic Learning Time is calculated as the product of (AT) (ER) (PE).

Table 13

Frequency and Percent of Use of Each Intervention from the Intervention Strategy Record (ISR) by Teacher

Teacher	Intervention																
	Planned Ignoring		Signal Interference		Modeling		Redirecting		Supporting		Use of Reinforcers		Punishing		Task Engagement Feedback		Total
	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f
1	0	0	3	10	6	19	2	6	7	23	0	0	2	6	11	36	31
2	0	0	12	29	1	2	2	5	9	22	0	0	0	0	17	42	41
3	0	0	5	28	1	6	1	6	4	22	0	0	0	0	7	39	18
4	0	0	4	16	1	4	0	0	7	28	0	0	2	8	11	44	25
5	0	0	1	5	9	43	1	5	9	43	0	0	0	0	1	5	21
6	0	0	7	18	5	13	1	3	11	29	0	0	0	0	14	37	38
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	100	33
8	0	0	3	33	0	0	0	0	1	11	0	0	2	22	3	33	9
9	0	0	0	0	0	0	1	7	1	7	0	0	2	14	10	71	14
10	0	0	0	0	0	0	2	25	0	0	0	0	0	0	6	75	8
11	0	0	1	5	0	0	0	0	11	55	0	0	0	0	8	40	20
12	0	0	0	0	0	0	0	0	9	39	3	13	0	0	11	48	23
Total[a]	0	0	36	13	23	8	10	4	69	25	3	1	8	3	132	47	281
Mean	0	0	3	12	2	7	.8	5	6	23	.3	1	.7	4	11	48	23

[a] Total percents were calculated as total frequency divided by 231

Table 14

Frequency and Percent of Intervention Types and Task Engagement Feedback
From The Intervention Strategy Record (ISR) by Teacher

Teacher	Neutral Intervention f	Neutral Intervention %	Positive Intervention f	Positive Intervention %	Punitive Intervention f	Punitive Intervention %	Total Interventions	Intervention Frequency [a]	TEF[b] f	TEF[b] %	TEF Frequency[c]
1	9	45	9	45	2	10	20	4.8	11	35	22.9
2	13	54	11	46	0	0	24	5.7	17	41	14.8
3	6	55	5	45	0	0	11	2.6	7	39	36.0
4	5	36	7	50	2	14	14	3.3	11	44	22.9
5	10	50	10	50	0	0	20	4.8	1	5	252.0
6	12	50	12	50	0	0	24	5.7	14	37	18.0
7	0	0	0	0	0	0	0	0	33	100	7.6
8	3	50	1	17	2	33	6	1.4	3	33	84.0
9	0	0	2	50	2	50	4	1.0	10	71	25.2
10	0	0	2	100	0	0	2	.5	6	75	42.0
11	1	8	11	92	0	0	12	2.9	8	40	31.5
12	0	0	12	100	0	0	12	2.9	11	48	22.9
Mean	5	29	7	54	.7	7	12	3.0	11	49	48.3

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a. Frequency calculated in number per hour.

b. Task engagement feedback defined as any verbal reminder given by Teacher to student specifically intended to keep the student on-task.

(22)

Table 15

Observer Ratings of Teachers by Category
from the Observer Rating Scale (ORS)

Category	Teacher												Frequency		
	Primary Grades					Intermediate Grades									
	1	2	3	4	5	6	7	8	9	10	11	12	High	Av	Low
Classroom Climate															
Cooperation	H	H	H	A	H	H	A	A	H	H	H	H	9	3	0
Warmth	A	H	H	H	H	H	L	A	H	A	H	H	8	3	1
Awareness of Feelings	H	H	H	A	H	H	A	H	H	A	H	H	9	3	0
Acceptance of Feelings	H	H	H	A	H	H	L	H	A	A	H	H	8	3	1
Relationship with Students	H	H	H	H	H	H	A	H	H	A	H	H	10	2	0
* Sense of Fairness	H	H	H	H	H	H	H	H	H	H	H	H	12	0	0
* Performance Expectation	H	H	H	H	H	H	H	H	H	H	H	H	12	0	0
Teaching Style															
* Attention to Students	H	H	H	H	H	H	H	H	H	H	H	H	12	0	0
Clarity	H	H	H	H	H	H	H	H	H	A	H	H	11	1	0
* Instructional Appropriateness	H	H	H	H	H	H	H	H	H	H	H	H	12	0	0
Checking Students' Work	H	A	A	H	H	H	A	H	A	A	H	H	7	5	0
* Movement and Involvement	H	H	H	H	H	H	H	H	H	H	H	H	12	0	0
* Initiating Student Contac	H	H	H	H	H	H	H	H	H	H	H	H	12	0	0
Classroom Management															
Efficiency in Use of Time	H	H	A	H	H	H	H	H	H	L	H	H	10	1	1
Consistency	A	A	H	H	H	H	H	H	H	A	H	H	9	3	0
Absence of Need for Discipline	H	A	H	H	H	H	A	H	H	H	H	H	10	2	0
Non-permissiveness	H	A	A	H	A	A	H	H	H	L	A	A	5	6	1
Use of Praise	H	H	H	A	H	H	A	A	H	A	H	H	8	4	0
No. of High Ratings	16	14	15	14	17	17	10	15	16	8	17	17	176		
No. of Average Ratings	2	4	3	4	1	1	6	3	2	8	1	1		36	
No. of Low Ratings	0	0	0	0	0	0	2	0	0	2	0	0			4

* All ratings high (H)

PART II

TABLES REPORTING RESULTS FROM TEACHER-RECORD DATA

Table 16

Average Daily Allotted Minutes by Ability Level for Reading and Math From Daily Records (DR)

Class	Subject									
	Reading					Math				
	SN	L	A	H	Total	SN	L	A	H	Total
1	119	141	142	131	133	33	40	39	39	38
2	94	88	92	99	93	40	38	38	36	38
3	159	159	142	143	151	60	60	73	59	63
4	139	141	139	139	140	58	58	60	59	59
5	153	152	184	169	165	61	60	61	60	61
6	103	102	95	109	102	72	59	61	61	63
7	118	119	112	120	117	57	57	59	62	59
8	105	122	119	100	112	54	53	64	54	56
9	118	117	116	127	120	58	119	93	93	91
10	101	99	95	97	98	62	60	59	59	60
11	137	131	137	135	135	89	62	60	59	68
12	80	89	123	77	92	46	51	48	43	47
Mean	129	121	124	119	123	58	60	60	57	59

Table 17A

Average Daily Allotted Minutes in Each Activity Type (from DR) for Reading

Class	Seatwork					Question & Answer					Recitation, Drill					Demonstration					Discussion					Special Individual Work					Unassigned Activities				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	27	42	44	51	41	10	10	12	10	11	16	18	20	20	19	10	9	12	10	10	37	50	48	37	43	16	0	0	0	4	3	12	6	3	6
2	50	50	49	47	49	13	13	11	8	11	11	10	13	11	11	7	8	8	8	8	3	3	7	17	7	5	1	2	5	3	5	3	2	3	3
3	74	76	77	77	76	8	8	9	9	9	17	17	14	13	15	21	21	20	20	21	1	1	1	2	1	2	1	3	1	2	36	35	18	21	28
4	66	65	66	66	66	8	8	8	8	8	29	29	27	27	28	7	7	8	7	7	9	9	8	9	9	8	6	5	5	6	12	17	17	17	16
5	86	80	82	38	84	8	9	12	8	9	25	24	19	16	21	17	19	20	19	19	5	5	3	7	5	3	1	0	0	1	9	14	48	31	26
6	51	58	52	75	59	31	28	28	19	26	4	6	4	5	5	4	5	4	6	5	0	0	0	0	0	12	3	2	2	5	1	2	5	2	3
7	62	66	61	71	65	8	6	7	5	6	9	6	10	9	8	20	18	22	20	20	7	5	5	6	6	12	18	7	7	11	0	0	0	2	0
8	64	60	61	59	61	17	21	23	15	19	10	16	14	7	12	11	17	14	9	13	0	7	6	4	4	2	1	0	1	1	1	0	1	5	2
9	63	63	61	73	65	8	8	9	8	8	7	7	8	8	8	15	15	18	16	16	8	8	6	14	9	15	14	12	6	12	2	2	2	2	2
10	34	39	39	44	39	8	8	8	7	8	16	15	14	12	14	20	20	19	20	20	10	11	8	7	9	9	2	2	1	3	4	4	5	6	5
11	105	100	104	89	99	15	15	17	22	17	1	1	1	1	1	6	7	6	7	6	8	8	8	8	8	2	0	0	0	1	0	0	1	8	2
12	42	45	55	39	44	6	7	6	5	6	11	12	13	10	12	9	5	6	7	7	4	10	14	9	9	4	4	26	1	8	4	6	3	6	5
Mean	60	61	63	64	62	12	12	12	10	12	13	14	13	12	13	12	13	14	12	13	8	9	9	10	9	8	4	4	2	5	6	8	9	9	8

Table 17B

Average Daily Allotted Minutes in Each Activity Type (from DR) for Math

Class	Seatwork					Question & Answer					Recitation, Drill					Demonstration,Lecture					Discussion					Special Individual Work					Unassigned Activities				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	9	14	1[illegible]	15	13	4	5	5	5	5	1	2	2	2	2	11	15	15	15	14	0	1	1	1	0	8	3	1	1	3	0	0	0	0	0
2	26	26	27	28	26	3	3	3	2	3	6	6	6	5	6	2	2	2	1	2	0	0	0	0	0	3	1	0	0	1	0	0	0	0	0
3	30	27	37	36	32	0	0	0	0	0	18	18	10	9	14	3	3	21	9	9	0	0	0	0	0	3	2	0	0	1	6	10	5	5	7
4	25	24	30	20	25	5	5	5	4	5	3	3	3	3	3	5	5	5	5	5	2	2	1	2	2	5	6	5	5	5	13	13	11	20	14
5	38	39	46	39	41	6	7	3	4	5	9	8	8	5	8	4	4	3	6	4	0	0	0	0	0	3	0	0	1	1	1	2	1	5	2
6	21	23	37	38	30	34	23	12	11	20	7	7	6	5	6	1	1	2	3	2	0	0	0	0	0	5	2	0	0	2	4	3	4	4	4
7	34	35	40	40	37	6	8	9	9	8	5	7	5	3	5	4	4	3	6	4	0	0	0	0	0	8	3	2	4	4	0	0	0	0	0
8	33	33	34	35	34	4	4	4	3	4	6	6	6	4	6	9	9	20	9	12	0	0	0	0	0	2	1	0	0	1	0	0	0	3	0
9	29	59	62	28	44	8	9	8	9	9	6	6	7	7	6	10	11	11	11	11	0	15	0	18	8	5	19	2	19	11	0	0	4	1	2
10	25	28	29	30	28	8	9	9	9	9	1	2	2	1	2	13	14	14	14	14	3	3	2	3	3	11	4	3	1	5	1	0	0	1	1
11	60	40	41	38	45	18	10	10	9	12	0	0	0	0	0	9	9	9	12	10	0	0	0	0	0	2	3	0	0	1	0	0	0	0	0
12	17	20	24	15	19	1	3	3	4	3	11	8	9	6	8	8	10	10	11	10	0	0	0	0	0	2	1	1	1	1	7	10	1	6	6
Mean	30	31	35	30	31	9	7	6	6	7	6	6	5	4	5	6	7	9	8	8	0	2	0	2	1	5	4	1	3	3	3	2	2	4	3

Table 18A

Percent of Daily Allotted Minutes in Each Activity Type (from DR) for Reading

Class	Seatwork					Question & Answer					Recitation, Drill					Demonstration, Lecture					Discussion					Special Individual Work					Unassigned Activities				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	22	30	31	38	30	6	7	8	7	8	14	13	14	17	15	7	6	8	6	7	31	36	34	30	32	14	0	0	0	4	2	8	4	2	4
2	56	58	56	54	56	14	15	11	8	12	11	11	16	12	12	6	8	8	9	8	3	4	7	23	9	5	1	2	7	4	6	4	2	3	4
3	51	52	55	55	53	6	6	6	6	6	12	12	11	9	11	14	14	14	14	14	1	1	1	1	1	2	0	2	1	1	31	31	11	15	22
4	48	46	47	46	47	8	8	8	8	8	21	21	20	20	20	4	4	5	4	4	6	6	5	6	6	6	4	3	3	4	9	12	12	11	11
5	56	52	52	57	54	6	6	8	6	6	17	17	13	11	14	11	12	12	12	12	3	3	2	5	3	2	1	0	0	1	15	16	26	29	23
6	48	56	54	70	57	27	24	25	6	23	5	6	4	5	5	4	4	5	5	4	0	0	0	0	0	11	3	2	1	4	1	2	5	3	3
7	57	61	56	64	59	8	6	9	6	7	8	6	7	7	7	19	18	21	17	19	4	3	4	3	4	12	17	5	5	10	0	0	0	1	0
8	55	52	52	64	55	15	17	20	18	17	8	13	11	6	10	9	14	12	13	11	0	6	5	3	3	2	1	0	1	1	1	0	1	5	2
9	53	54	52	62	55	7	7	7	7	7	6	6	7	6	6	13	13	16	14	14	7	7	5	13	18	12	12	10	5	10	2	2	2	2	2
10	34	40	40	44	39	7	7	8	6	7	15	14	14	12	14	15	16	16	16	16	9	9	7	7	8	9	3	3	2	4	3	3	4	5	4
11	77	77	77	66	74	11	11	12	16	13	0	1	0	0	0	5	5	4	5	5	6	6	6	6	6	1	0	0	0	0	0	0	1	6	2
12	57	56	60	53	56	7	8	6	6	7	12	13	13	13	13	10	4	6	9	7	5	13	16	11	11	4	7	34	1	10	5	4	2	7	5
Mean	51	52	52	56	53	10	10	11	9	10	11	11	11	10	11	10	10	11	10	10	6	7	7	9	7	7	4	4	2	4	6	7	6	8	7

Table 18B

Percent of Daily Allotted Minutes in Each Activity Type (from DR) for Math

Class	Seatwork					Question & Answer					Recitation Drill					Demonstration,Lecture					Discussion					Special Individual Work					Unassigned Activities				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	23	35	36	36	33	7	10	10	10	9	1	4	4	4	4	26	29	29	29	28	0	1	1	1	1	25	6	4	4	9	0	0	0	0	0
2	65	69	71	76	70	7	7	7	5	6	16	16	16	16	16	5	5	5	3	5	1	1	1	0	1	7	2	0	0	3	0	0	0	0	0
3	51	45	63	61	55	0	0	0	0	0	30	30	17	15	23	4	4	35	16	15	0	0	0	1	0	4	4	0	0	2	11	17	8	8	11
4	48	46	56	38	47	9	9	8	9	9	6	6	5	6	6	8	8	8	8	8	3	4	2	3	3	10	10	9	8	9	26	26	21	38	28
5	64	65	76	65	68	10	11	5	7	8	14	14	14	8	13	7	7	4	9	7	0	0	0	0	0	5	0	0	2	2	1	3	1	8	3
6	36	38	62	62	49	58	40	19	18	34	11	12	9	9	10	1	2	4	5	3	0	0	0	0	0	8	3	0	0	3	7	5	6	6	6
7	57	59	67	68	62	12	13	15	14	13	12	13	9	5	10	7	6	6	7	6	0	0	0	0	0	13	14	4	6	7	0	0	0	0	0
8	55	55	58	61	57	7	7	6	5	6	11	11	10	6	10	15	15	33	15	20	0	0	0	0	0	3	2	0	0	1	0	0	0	1	0
9	50	100	104	49	76	14	15	14	16	15	10	10	12	11	11	18	20	19	19	19	0	25	0	30	14	8	32	4	32	19	0	1	7	5	3
10	44	49	51	53	49	12	14	15	15	14	2	3	3	2	2	19	23	23	23	22	4	5	4	4	4	18	6	5	2	7	2	1	0	2	1
11	100	67	69	63	75	30	16	16	16	20	0	0	0	0	0	15	15	15	20	16	0	0	0	0	0	3	5	0	1	2	0	0	0	0	0
12	33	33	44	33	36	1	6	6	8	6	18	14	13	12	15	21	23	23	27	24	0	0	0	0	0	3	2	2	1	2	15	16	1	14	11
Mean	53	56	63	55	57	15	13	10	10	12	11	11	10	8	10	12	13	17	15	14	1	3	1	3	2	9	7	2	5	6	5	6	4	7	5

Table 19A

Percent of Time in Each Difficulty Level from Daily Records (DR) for Reading

Class	Difficulty Level														
	Easy					Medium					Hard				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	38.1	44.5	38.0	40.9	40.3	36.7	42.8	48.0	48.5	43.9	11.4	0.7	0.0	0.0	3.2
2	36.3	54.2	52.9	80.6	56.1	55.7	41.9	49.0	19.9	41.4	9.4	5.5	0.0	0.0	3.3
3	33.2	76.7	53.4	89.0	63.0	58.3	14.1	41.3	9.5	30.8	3.7	0.0	0.0	0.0	1.0
4	63.0	77.5	72.4	73.7	72.9	36.5	21.0	24.2	20.8	25.6	0.5	1.5	2.4	0.5	1.2
5	88.0	93.8	99.2	87.1	92.2	12.0	6.2	0.0	13.1	7.7	0.0	0.0	0.0	0.0	0.0
6	63.1	79.2	83.6	96.3	81.9	22.3	10.8	2.9	0.0	9.1	0.0	0.0	0.0	0.0	0.0
7	100.0	94.6	92.5	98.6	96.6	0.0	4.2	3.9	0.0	2.1	0.0	0.0	0.0	0.0	0.0
8	39.5	36.7	46.6	69.4	47.2	36.9	35.5	17.7	12.2	25.8	0.0	0.0	0.0	0.0	0.0
9	1.0	0.5	0.5	5.4	1.9	90.2	88.5	85.7	90.8	98.8	0.0	0.0	0.0	0.0	0.0
10	17.8	17.3	32.5	54.5	30.5	49.1	57.6	43.3	20.0	42.5	13.6	1.2	0.0	1.4	4.1
11	77.6	90.0	86.0	85.0	84.4	16.9	3.4	8.8	4.8	8.8	0 0	0.0	0.0	0.0	0 0
12	16.2	28.9	34.0	63.5	38.9	56.2	49.7	55.8	23.6	43.7	6.6	5.4	0.0	0.0	2.7
Mean	43.6	57.1	58.1	70.2	58.5	39.0	32.1	30.8	22.4	31.0	3.9	1.2	0.2	0.2	1.4

Table 19B

Percent of Time in Each Difficulty Level from Daily Records (DR) for Math

Class	Difficulty Level														
	Easy					Medium					Hard				
	SN	L	A	H	Total	SN	L	A	H	Total	SN	L	A	H	Total
1	2.9	1.8	29.8	35.1	17.8	55.2	52.1	35.1	29.8	42.7	8.5	7.6	0.0	0.0	3.9
2	64.5	69.3	75.2	84.3	72.2	30.3	25.4	24.8	15.7	24.9	5.3	5.3	0.0	0.0	2.9
3	24.0	47.9	50.0	95.3	54.3	47.9	36.5	41.1	4.7	32.6	21.4	7.3	0.0	0.0	7.3
4	51.3	73.3	67.8	92.0	71.1	33.7	32.8	36.7	12.6	28.9	13.9	3.4	5.3	5.5	7.0
5	70.4	70.6	65.8	50.0	63.7	16.7	22.8	28.9	28.9	24.5	4.6	0.0	0.0	3.5	2.1
6	40.4	33.5	60.6	78.1	54.3	42.8	48.3	24.6	12.5	32.1	6.7	3.3	0.0	0.0	2.6
7	80.3	69.0	79.8	86.1	78.8	9.2	13.4	13 2	5.6	10.4	0 0	5.1	0.4	0.0	1.4
8	64.7	64.8	75.9	42.3	63.2	12.7	13.7	9.6	14.0	12.3	0.0	0.0	0 0	0.0	0.0
9	0.0	25.2	18.7	55.9	24.3	58.8	103.5	106.2	28.4	75.0	1.3	0.8	0.0	0.0	0.7
10	7.3	2.9	3.6	30.0	10.7	34.9	54.8	55.3	41.5	46.4	37.7	16.1	14.4	0.0	16.6
11	60.1	53.9	89.5	78.2	69.4	34.6	45.6	10.5	16.2	26.5	0.0	0.0	0.0	0.0	0.0
12	33.9	41.5	16.4	52.0	36.5	42.7	35.5	50.9	33.6	40 4	0.0	9.1	19.6	0.0	7.6
Mean	43.4	46. 8	54.3	65.0	52.3	34.2	41.0	35.2	20.2	32.7	7.6	4.7	3.0	0.8	4.0

PART III

TABLES REPORTING RESULTS FROM SELF-REPORT DATA

Table 20

Frequency of Use of Each Intervention (from ISI) by Teacher

Teacher	Intervention Strategy Type													
	Supportive						Neutral				Punitive			
	SG	SSP	H	GP	UR	RD	M	TEF	I	RM	W	RP	MP	SP
1	8	5	2	6	4	7	2	2	0	1	1	3	3	0
2	4	2	1	13	4	6	0	2	0	3	2	4	3	0
3	3	3	4	7	8	4	1	3	2	3	2	2	2	0
4	9	6	3	11	3	5	0	3	1	1	0	1	1	0
5	6	6	3	7	5	5	2	2	2	1	0	1	4	0
6	6	8	3	7	3	9	2	2	1	1	1	0	1	0
7	5	6	3	11	4	4	1	3	0	1	2	1	3	0
8	9	5	5	12	3	4	0	1	0	1	1	2	1	0
9	5	4	3	11	4	4	0	3	0	2	2	4	1	0
10	7	4	2	7	4	6	1	4	0	3	1	3	2	0
11	8	8	2	7	3	3	0	3	2	1	4	0	3	0
12	8	4	4	7	4	9	0	2	0	1	3	1	1	0
Total	78	61	35	106	49	66	9	30	8	19	19	22	25	0

Key: SG=Supportive General; SSP=Supportive Special Program; H=Humanistic; GP=Glasser Principle; UR=Use of Reinforcers; RD=Redirecting; M=Modeling; TEF=Task Engagement Feedback; I=Ignore; RM=Remind; W=Warn; RP=Reprimand; MP=Mildly Punitive; SP=Moderately-Severely Punitive

Table 21

Variety of Interventions[a] Chosen on ISI by Teacher

Teacher	Supportive (6 interventions)	Neutral (4 interventions)	Punitive (4 interventions)	Total (14 interventions)	% of Total Chosen
1	6	3	3	12	86
2	6	2	3	11	79
3	6	4	3	13	93
4	6	3	2	11	79
5	6	4	2	12	86
6	6	4	2	12	86
7	6	3	3	12	86
8	6	2	3	11	79
9	6	3	3	11	79
10	6	3	3	12	86
11	6	3	2	11	79
12	6	2	3	11	79
Mean	6	3	3	12	83

---

[a] Description of the 14 interventions is found in the key on Table 20.

Table 22

Frequency and Percent for Each Intervention Strategy Type (from ISI) by Teacher

Class	Factor																							
	Conduct Problem						Learning Problem						Personality Problem						Total					
	Supportive		Neutral		Punitive		Supportive		Neutral		Punitive		Supportive		Neutral		Punitive		Supportive		Neutral		Punitive	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%
1	8	50	2	13	6	33	11	92	1	8	0	0	13	81	2	13	1	6	32	73	5	11	7	16
2	11	69	1	6	4	25	7	58	3	25	2	17	12	75	1	6	3	19	30	68	5	11	9	21
3	10	62	3	19	3	19	9	75	2	17	1	8	10	63	4	25	2	13	29	66	9	20	6	14
4	12	75	3	19	1	6	12	100	0	0	0	0	13	81	2	13	1	6	37	84	5	11	2	5
5	12	75	2	13	2	13	11	92	1	8	0	0	9	56	4	25	3	3	32	73	7	16	5	11
6	13	81	2	13	1	3	10	83	2	17	0	0	13	81	2	13	1	6	36	81	6	14	2	5
7	11	69	1	6	4	25	11	92	0	0	1	8	11	69	4	25	1	6	33	75	5	11	6	14
8	13	81	0	0	3	19	10	84	1	8	1	8	15	94	1	6	0	0	38	86	2	5	4	9
9	11	69	1	6	4	25	9	75	1	8	2	17	12	75	3	19	1	6	32	73	5	11	7	16
10	14	88	0	0	2	13	5	42	4	33	3	25	11	69	4	25	1	6	30	68	8	18	6	14
11	9	56	3	19	4	25	10	83	0	0	2	17	12	75	3	19	1	6	31	70	6	14	7	16
12	11	69	1	6	4	25	11	92	0	0	1	8	14	88	2	13	0	0	36	82	3	7	5	11
Mean	11	70	2	10	3	20	10	81	1	10	1	9	12	76	3	17	1	7	33	75	6	12	6	13

Table 23

Frequency and Percent of Supportive Interventions Chosen by Type of Student (from ISI) by Teacher

Teacher	Behavior and Student Type											
	Low Severity (14 items)			High Severity (14 items)			Low Ability (7 items)			High Ability (6 items)		
	f	%	Code[a]	f	%	Code	f	%	Code	f	%	Code
1	10	71	GS	7	50	NS	4	57	GS	4	67	GS
2	9	64	GS	10	71	GS	4	57	GS	2	33	NS
3	10	71	GS	6	43	NS	2	29	NS	4	67	GS
4	12	86	VS	11	79	GS	7	100	VS	4	67	GS
5	12	86	VS	8	57	GS	6	86	VS	4	67	GS
6	12	86	VS	12	86	VS	7	100	VS	2	33	NS
7	13	93	VS	9	64	GS	6	86	VS	3	50	NS
8	11	79	GS	13	93	VS	6	86	VS	3	50	NS
9	12	86	VS	10	71	GS	7	100	VS	3	50	NS
10	8	57	GS	10	71	GS	4	57	GS	2	33	NS
11	12	86	VS	9	64	GS	6	86	VS	3	50	NS
12	12	86	VS	11	79	GS	6	86	VS	5	83	VS
Mean	11	79	GS	10	71	GS	5	71	GS	3	50	NS

[a] Percent Codes: VS = Very Supportive ≥ 80%; GS = Gernerally Supportive = 51-79%; NS = Not Supportive ≤ 50

Table 24

Raw Scores on Factors of Classroom Management (CM) by Teacher

acher	Factor					
	Assignment of Homework (r=2-4)	Lesson Structure (r=7-28)	Physical Environment & Mobility (r=6-24)	Ad-Hoc Grouping (r=4-16)	Academic Feedback (r=4-16)	Attention to Individual Needs (r=3-12)
1	2	23	15	14	13	12
2	3	23	18	14	14	11
3	2	25	16	13	16	12
4	2	25	16	10	15	11
5	4	23	11	14	13	11
6	2	23	14	12	14	10
7	4	23	20	12	14	10
8	4	25	10	10	15	12
9	4	25	10	11	15	11
10	4	24	12	11	15	8
11	4	25	12	12	15	11
12	4	25	21	13	16	12
an	3.3	24	14	12	15	11

Table 25

Raw Scores on Factors from Educational Dimensions Survey (EDS) by Teacher

eacher	Factor		
	Job Satisfaction (r=3-15)	Support Systems (r=10-50)	Self Rating (r=2-10)
	10	25	10
	14	39	10
	10	35	8
	15	44	6
	15	46	10
	14	40	8
	12	24	9
	12	34	8
	15	39	8
0	12	35	6
1	12	26	10
2	14	36	8
ean	13.0	35.3	8.4

Table 26

Raw Scores on Factors from Job Satisfaction Questionnaire (JSQ) by Teacher

Teacher	Situational Items[a] (18-90)	Job-related Items[a] (22-110)	Total Items[a] (40-200) Raw Score	%
1	48	69	117	48
2	72	104	176	85
3	78	94	172	83
4	87	107	194	96
5	80	105	185	91
6	85	102	187	92
7	70	104	174	83
8	71	87	158	74
9	72	104	176	85
10	56	79	135	60
11	37	76	113	46
12	61	98	159	75
Mean	68	94	162	76

---

[a] Numbers in parenthesis represent ranges for collapsed items

Table 27

Raw and Percent Scores from Teacher Opinion Inventory (TOI) by Teacher

Teacher	Affective Environment (8-40)		Flexibility (6-30)		Controlling (6-30)		Scope of Responsibility (6-30)		Philosophy of Education (9-45)	
	r	%	r	%	r	%	r	%	r	%
1	36	90	25	83	25	83	29	97	35	78
2	26	65	22	73	20	67	20	67	35	69
3	23	58	21	70	17	57	29	97	30	67
4	26	65	26	87	23	77	28	93	36	80
5	24	60	21	70	15	50	28	93	28	62
6	29	73	22	73	23	77	28	93	28	62
7	29	73	20	67	20	67	26	87	28	62
8	26	65	22	73	20	67	25	83	33	73
9	23	58	23	77	18	60	21	70	30	67
10	26	65	23	77	18	60	23	77	31	69
11	27	68	27	90	26	86	26	87	42	93
12	32	80	25	83	23	77	25	83	39	87
Mean	27	68	23	77	21	70	26	86	33	73

r=raw score

Table 28

Raw Scores on Factors from Teacher Questionaire on Mainstreaming (TQM) by Teacher

Teacher	Factor[a]					
	Philosophy of Mainstreaming (r=8-40)	Classroom Behavior (r=6-30)	Perceived Ability to Teach (r=4-20)	Classroom Management (r=4-20)	Academic and Social Growth (r=4-20)	Total Score (r=26-130)
1	32	18	9	13	16	88
2	22	14	13	6	10	65
3	36	20	6	8	14	84
4	32	17	4	8	13	74
5	37	22	12	15	19	105
6	35	18	12	8	17	90
7	30	23	10	13	12	88
8	29	23	13	16	16	97
9	32	22	15	10	11	90
10	30	21	10	14	12	87
11	34	25	11	17	18	105
12	36	27	14	17	19	113
Mean	32	21	11	12	15	91

---

[a] All factors are relative to special needs students

PART IV

TABLES REPORTING RESULTS FROM INTERVIEW DATA

Table 29

Percent Scores[a] on Factors from Student Interview (SI) by Class

Class	Factor			
	Teacher Clarity	Appropriateness of Noise Level	Teacher Warmth	Individualization
1	82	24	96	41
2	82	11	93	70
3	78	41	94	55
	89	35	95	65
	92	68	97	72
	88	23	88	68
	78	20	85	67
	90	34	86	47
	94	59	84	82
0	92	83	96	78
	87	60	97	68
2	89	90	98	81
an	86.8	50.3	92.4	66.3

---

[a] % of students in each class answering positively to interviewers' questions.

Table 30

Summary of Teacher Background Data from Background Information (BI)

tem	Response	Frequency (n=12)
rade Level	1-3	5
	4-6	7
umber of Years Teaching	1-9	3
	10+	9
umber of Years Teaching t This Level	1-4	3
	5-9	5
	10-15	4
umber of Years Teaching t This School	1-9	6
	10+	6
ighest Degree Earned	BA + 30	6
	MA	6

Table 31

Summary of Descriptive Data on Classrooms from Background Information (BI)

Item	Response	Frequency (n=12)
Number of Students in School	< 400	9
	≥ 400	3
Number of Students in Class	< 25	6
	≥ 25	6
Number of Math Groups	1	1
	2	3
	3	8
Number of Reading Groups	1-2	0
	3	10
	4	2
Number of Students Receiving Help	1-2	4
	3-4	2
	4+	6
I E P for Special Needs Child	Yes	10
	No	2
SES Status of School[a]	Low	7
	High	5

---

[a] Determined by R.I. Department of Education

IDENTIFYING TEACHERS EFFECTIVE WITH SPECIAL NEEDS STUDENTS IN THE REGULAR CLASSROOM SETTING

Barbara Larrivee

Paper presented at:

The Second International Congress on Education
Vancouver, Canada

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This study was supported by a grant from the Bureau of Education for the Handicapped, Division of Personnel Preparation (Grant #G00 780 1424).

Identifying Teachers Effective with Special Needs Students in the Regular Classroom Setting

Abstract

The purpose of this study was to identify teachers successful with special needs students integrated in the regular classroom and to determine if these teachers would be the same teachers who are effective with the total classroom. The sample was comprised of 33 regular classroom teachers in grades one through six who were participants in an inservice training project. All students in these classrooms were assessed on a pre-post basis on the following variables: (1) general aptitude; (2) academic achievement in reading, language, and math; (3) classroom behavior; (4) peer acceptance; (5) school attitude; and (6) self-concept. Based on this data base, classroom profiles were established, and those youngsters showing the greatest discrepancy were identified as the target population. The research design considered gains made by target youngsters as well as average classroom gains for each teacher. Effective teachers were defined as those teachers whose students showed gains above the expected gain on the majority of those variables assessed. Results indicate that all teachers who were effective with targeted students were also effective with their whole class. However, the reciprocal relationship; i.e., those teachers successful with their whole class who were also successful with target youngsters, showed only 47% overlap.

Background

In the past few years there has been an increasing movement toward mainstreaming handicapped children. Legal, financial, and social pressures are all making it more likely that learning disabled, mildly retarded, and mildly emotionally disturbed children will appear with increasing frequency in regular classrooms. Clearly, regular educators will be called on to meet new instructional and management challenges.

State and local educational agencies have already begun the process of retraining regular education teachers. However, no real body of knowledge exists to aid educators in selecting appropriate inservice training. Currently a variety of commercial materials are available ranging from comprehensive programs designed as total curriculums to individual modules and workshops concerned with a particular skill, attitude, or competency deemed relevant by their respective author. Yet it has not been established which skills are important for regular educators to master in order to effectively educate special needs children. Nor has the relationship between the acquisition of new teaching skills and the appropriate modification of teaching behaviors on the part of the regular classroom teacher been considered.

In order to address this concern, the Bureau of Education for the Handicapped (BEH) has funded a regular education inservice training project which will attempt to validate teaching behaviors which effect positive change in the special needs child's performance in the regular classroom and subsequently match inservice training to the identified behaviors. The first phase of the grant entails the identification of regular classroom teachers who have clearly demonstrated their effectiveness with special needs children. The data source for selection purposes consisted of a sample of regular classroom teachers who had previously participated in an inservice training project which involved the collection of extensive data on students in their classrooms. The intent of this paper is to delineate the procedures used to identify teachers effective with special needs students in the regular classroom setting.

Methodology

Over a three-year period, a total of 33 regular classroom teachers in grades one through six had taken part in an inservice training project for regular educators sponsored by BEH. During the course of this project, data was obtained on a pre-post basis for all students in the participating classrooms. The variables assessed included: (1) general aptitude; (2) academic achievement in reading, language, and mathematics; (3) classroom behavior; (4) peer acceptance; (5) school attitude; and (6) self-concept. Scores on each of these dimensions were obtained at the onset of the school year and again at the end of the year. Since the same assessment procedure was maintained for the 1975-76, 1976-77, and 1977-78 school years, it was possible to collapse this data over the three-year period. Based on compilation of the aptitude, academic, social, attitudinal and behavioral data, a target group of children within each classroom was identified. Using pre-test scores, a classroom profile was established from which targeted students were selected. Those students with the most discrepant profiles were identified as the target or special needs students for a given classroom. In order to provide for a uniform procedure for selection across all classrooms, a point system was devised which was based on the severity of the discrepancy for each of the seven variables assessed. After the point system has been applied to each classroom of students, those four students receiving the highest "score" were designated as the target students.

Selection Procedure

In order to select the pool of effective teachers, a series of criteria were set considering gains made by targeted students as well as gains made by the class at large. Two sets of criteria applied to gains of target students and a third set considered gains of the entire class. Gain scores were considered in all areas assessed except the attitudinal variables due to a high incidence of missing data coupled with a restricted range of obtained scores.

Criteria I - Overall Profile Gain of Target Students

Since the children in the target group were selected as a result of their performance on academic variables such as Reading, Mathematics, and Language (as measured by their scores on the California Achievement Tests), and behavioral variables (as measured by their Sociogram and Behavior Rating Scale scores, the "profile"score was defined as the discriminant score obtained by performing a discriminant analysis on the target and the non-target groups with the pre-test scores on the five variables mentioned above. Due to the small number of target children in each class, it was necessary to combine the target children in all the classes to obtain the target group. For this purpose, Achievement

Development Scale Scores (ADSS) were used. The ADS Scores are invariant across grades and, hence, are ideally suited in this case.

Prior to carrying out the discriminant analysis, the target and the non-target groups were collapsed over the years of the project and compared on the vector of pre-test means for the five dependent variables. Multivariate analysis of variance indicated that these two groups were significantly different ($p < .0001$). A discriminant analysis was then carried out to determine the linear combination of variables (discriminant function) that maximally differentiated the two groups. The discriminant function coefficients are given in Table 1.

- -

Insert Table 1 about here

- -

In order to determine the accuracy of the discriminant analysis procedure, the number of known cases that can be correctly classified in target and non-target groups was computed. The analysis indicated that 86.5 percent of the known cases were correctly classified by this procedure.

The discriminant score (DS) for each child can then be computed (using the unstandardized coefficients) as:

$$\begin{aligned} DS = {} & .00859\ (RADSS) + .00239\ (MADSS) - .00178\ (LADSS) \\ & - .01896\ (BRS) - 1.58156\ (SOC) + .31024 \end{aligned}$$

When the pre-test scores for each of these variables is substituted in the above expression, we obtain the pre-test discriminant score (Pre DS). Similarly, the post-test discriminant score (Post DS) can be obtained. The gain or change (GDS) in the overall profile is then obtained as

$$GDS = Post\ DS - Pre\ DS.$$

In order for teachers to be considered effective by this criteria, it was necessary for the following two conditions to apply:

Condition 1:	The classroom mean discriminant gain (GDS) for target children is greater than the mean discriminant gain of the entire target group.
Condition 2:	The proportion of target children who are successful exceeds .5. Successful children are defined as those whose gains exceed that of the mean discriminant gain for the entire target group.

- -

Insert Table 2 about here

- -

Inspection of Table 2 indicates that 11 teachers met this dual criteria of effectiveness with targeted youngsters.

Criteria II - By Variable Gain of Target Students

Gains were considered in Reading, Language, Mathematics, Behavior Rating, and Social Scale. In order for teachers to be categorized as effective in a given variable it was necessary that both of the following conditions be met:

Condition 1:	The classroom mean gain for target children is greater than the mean gain of the entire target group.
Condition 2:	The proportion of target children whose gains are greater than the mean gain exceeds .5.

An overall criteria of success on at least three of the five variables was applied in this case. Twelve teachers met Criteria II.

Criteria III - Total Classroom Gain

Gains were considered on the five variables mentioned above. The criteria for effectiveness in this case was an individual classroom's mean gain in excess of the overall mean gain of all students in that grade. Here, as with Criteria II, an overall criteria of success on at least three variables was applied. Nineteen, or more than half, of the original pool of teachers met this criteria.

For the final selection of effective teachers it was decided to include teachers who met either criteria of success with target students in addition to being successful with their total classroom. This decision rule was instrumented due to the ineligibility of several classrooms for meeting the discriminant gain criteria resulting from missing data on any of the five variables considered. As shown in Table 2, twelve of the original pool of 33 teachers were categorized as effective.

Discussion

Comparison of pairs of criteria resulted in considerable overlap as shown in Table 3 accompanied by Figure 1. Of most interest is the finding that 100% of the teachers who were effective with targeted youngsters on both criteria were also found to be effective with their total class. That is, those teachers who were most successful with their special needs students were able to accomplish these gains while simultaneously achieving similar gains for all their students. This finding does not lend support to the generally accepted notion that the extra time required to effectively educate the special child will be to the detriment of the rest of their classmates. In fact, these results indicate that success with special needs students was both a necessary and sufficient condition to warrant total classroom success. However, the reciprocal relationship, i.e., success with the total classroom crossed with target student success showed only 47% overlap. Apparently, realizing success with the class at large is in no way predictive of success with the special student.

Table 1

Discriminant Function Coefficients

Variable	Unstandardized Discriminant Function Coefficient	Standardized Discriminant Function Coefficient
Reading (RADSS)	.00859	.63015
Math (MADSS)	.00239	.15152
Language (LADSS)	-.00178	-.14236
Behavior Rating Scale (BRS)	-.01896	-.54319
Sociogram (SOC)	-1.58156	-.55896
Constant	.31024	

Table 2

Successful Teachers by Criteria

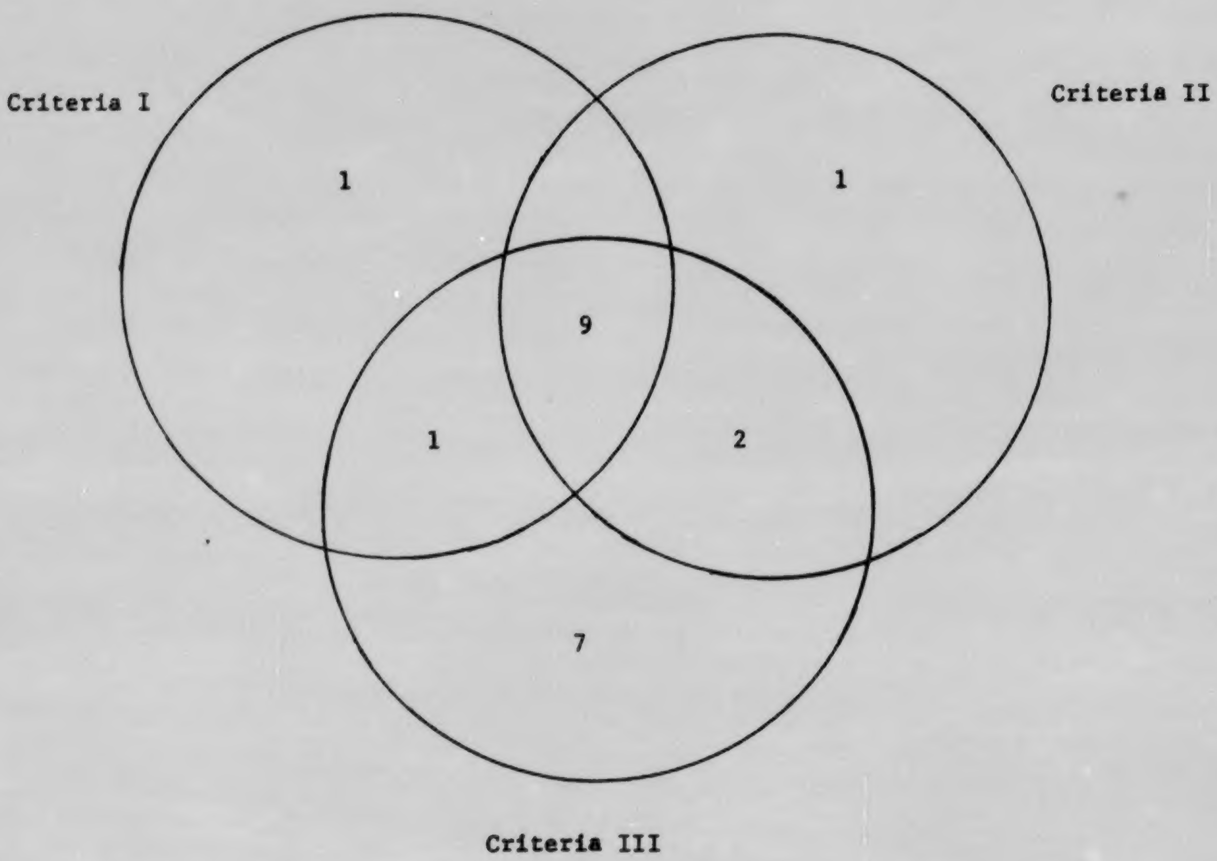
Teacher ID	Criteria: Target Profile Gain	Criteria: Target By Variable Gain	Criteria: Total Classroom Gain	Criteria: Target and Total Gain
1	*	*	*	*
3			*	
4			*	
5		*		
7	*	*	*	*
9			*	
10	*	*	*	*
13	*	*	*	*
15			*	
17			*	
18	*	*	*	*
20		*	*	*
24			*	
26	*	*	*	*
27	*			
31	*	*	*	*
32	*		*	*
33	*	*	*	*
34			*	
36	*	*	*	*
37		*	*	*

Table 3

Percent of Successful Teacher Overlap Across Sets of Criteria

Relationships Paired	Ratio	Percent Overlap
Successful with Targets on *both* criteria (9) *and* successful with the Total Class (9)	9/9	100
Successful with Targets on *either* criteria (14) *and* successful with the Total Class (12)	12/14	86
Successful with Total Class (19) *and* successful with Targets on *both* criteria (9)	9/19	47
Successful with Total Class (19) *and* successful with Targets on *either* criteria (12)	12/19	63

Figure 1


Criteria I
Criteria II
1
1
9
1
2
7
Criteria III

A COMPARISON OF ACADEMIC LEARNING TIME (ALT) FOR MAINSTREAMED, LOW, AVERAGE, AND HIGH ABILITY STUDENTS

Barbara Larrivee Janet M. Vacca

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Boston

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A Comparison of Academic Learning Time (ALT)
for Mainstreamed, Low, Average, and High Ability Students

ABSTRACT

The purpose of this study was to compare several instructional time variables for a select group of effective teachers and a non-select sample of teachers, and to examine these variables for special needs, or mainstreamed, students and students of varying ability levels. Allotted time, student engaged time, and academic learning time (ALT) data were collected via a classroom observation schedule. The selected students were observed on eight occasions over a three month period. Results indicated that these instructional time variables were substantially higher in effective teachers' classrooms. Furthermore, significant ability level differences were evident. While allotted time did not differ among the student types observed, engagement rate, percent of easy difficulty tasks, and ALT were all significantly higher for average and high ability students than for low ability and mainstreamed students.

BACKGROUND

In recent years much research has focused on the relationship between amount of instructional time and student achievement. Although correlations of achievement with amount of instructional time have consistently been reported in the literature, the strength of the time-achievement relationship is apparently, to a certain extent, a function of the definition of instructional time used by the researcher. When instructional time is defined merely as time scheduled or allotted to the content area under consideration, without regard to student engagement rate, the correlation with achievement is generally low (e.g., Good & Grouws, 1975, Kidder, O'Reilly & Kiesling, 1975; McDonald & Elias, 1976). However, when instructional time is defined as engaged time or actual time-on-task (also referred to as attention or involved time), substantial correlation with student achievement has been well documented within the reading and math areas (Anderson, 1975; Arlin & Roth, 1978; Bloom, 1974; Cobb, 1972; Cooley & Leinhardt, 1978; Fisher, Filby, Marliave, Cahen, Dishaw, Moore, & Berliner, 1978; Lahaderne, 1968; Samuels & Turnure, 1974; Schultz, 1973; Stallings & Kaskowitz, 1974).

Evidently engaged time provides a more valid indicator of instructional time, since it requires efficient utilization of allocated time. Recently Fisher, et al.(1978) have proposed a third dimension to the instructional-time relationship namely, task appropriateness. That is, a student's learning potential will be maximized when the student is actively engaged in a content-related task that is of appropriate difficulty level. This variable is referred to as "academic learning time". The present study is an attempt to further investigate these instructional time variables for a sample of effective teachers, considering student ability level as a potential source of variation. Specifically, the purpose of this study was two-fold: (1) to examine allotted time, engagement rate, task difficulty level, and academic learning time (ALT) for mainstreamed students as compared to their classmates of varying levels of academic ability; and (2) to compare these variables for a selected group of effective teachers and a non-select sample of teachers.

PROCEDURE

The operational plan called initially for the selection of regular classroom teachers who had previously demonstrated their effectiveness with special needs students functioning in the regular classroom setting. Teachers were selected based on the actual performance of special needs students in their classrooms. The initial sample of teachers was comprised of 33 regular classroom teachers in grades one through six who were participants in a federally-funded inservice training project. All students in these classrooms were assessed on a pre-post basis on academic, behavioral, social, and attitudinal variables. A series of criteria were established considering gains made by the special needs, or mainstreamed, students as well as gains made by the class at large for selection purposes. Effective teachers were defined as those teachers whose students showed gains above the expected gain on the majority of those variables assessed. Twelve teachers were identified as meeting this dual-criteria of success with both their special needs students and their class at large. (See Larrivee, 1979 for a more complete description of the selection procedure.) These twelve teachers subsequently agreed to participate in the validation phase of a second training project. For their participation they received a small stipend.

METHOD

The research design for data collection on the instructional time variables necessitated prior selection of four students in both the content areas of reading and math. The four students selected were a special needs learner and a low, average, and high ability student in each content area. A series of decision rules were constructed for selection of the special needs learner including the existence of a written IEP, previous special education classification, and present referral. For selection of the remaining three ability-level students, all students were initially grouped by ability within subject and then a random number sequence was applied to each group. The design called for tracking the same special student in both content areas and three different students in reading and math, or a total of seven students per class.

The data were collected over a three-month period. The data collection scheme included a classroom observation component and a teacher self-report daily record of allotted time per student being tracked. The observation system recorded four categories: academic content, classroom activity type, student engagement, and degree of task difficulty. The observation form was organized to be coded at 15-second intervals for each student observed. Each of the four pre-selected students were observed and coded once per minute. Sixteen 30-60 minute observations were conducted, eight in each subject area. Observations were conducted once per week. The observation scheme was designed to sample across days of the week, time of day, and activity type to ensure greater generalizability. Three coders were used to conduct the observations. Prior to data collection, intercoder agreement was established as follows: 100% for academic content, 98% for classroom activity type, 90% for student engagement, and 87% for task difficulty.

ANALYSIS AND RESULTS

For analysis purposes, the four variables considered were allotted time, engagement rate, percent of time at easy difficulty level, and ALT. ALT was defined as instructional time in the content area during which a student is both engaged and working at an appropriate level of difficulty. The total time allotted to reading and math for each day on which an observation was conducted was taken from teacher daily record forms completed for the selected students. Engagement and difficulty rates were calculated from the observation data and pro-rated for the total time allotted to compute ALT. For each observation period, variable scores were computed; these scores were averaged across eight occasions.

The analysis performed was a two-way ANOVA (class X ability). A randomized block design, blocking on teachers, was used to examine the effect of ability. Separate analyses were done for reading and math. As shown in Table 1, the results for reading reveal that while allotted time did not differ by student ability level, engagement rate, difficulty level, and ALT differed significantly. In math, neither allotted time nor engagement rate differed as a function of ability level, whereas difficulty level and ALT were significantly different (Table 2). The main effect due to class was significant for all four instructional time variables in both reading and math. Use of the Bonferroni-t procedure to further examine the extent of the differences by ability group revealed that engagement rate was not significantly different for the special needs learner as compared to both the low and average ability students, but the comparison with high ability students showed significant differences ($p < .05$ for math; $p < .01$ for reading). Similar comparisons for difficulty level and ALT showed the special needs learner to be significantly different from both the average and high ability students in favor of the higher ability students. These results held for both reading and math. The reader is reminded that the results reported here are relative to classrooms of teachers identified as effective and therefore may not be generalizable to the population at large.

In order to provide a preliminary comparison of these instructional time variables for selected effective teachers and non-select teachers, the results reported here were compared with the results of the Far West Lab in the Beginning Teacher Evaluation Study (Fisher, Filby, & Marliave, 1977). Teachers participated in that study on a volunteer basis and therefore degree of effectiveness was not a controlled variable. An attempt was made to apply similar definitions to the variables being considered in order to render the comparisons more meaningful. However, data collection methodology for the two studies differed substantially. Tables 3 and 4 are offered for comparison purposes. Analyses were initially conducted to determine the effect of grade; the findings were that only allotted time differed significantly due to primary (grades 1-3) or intermediate (grades 4-6) grade level. Reading allotted time was higher for primary grades while math allotted time was higher for intermediate grades. As a result of these findings, coupled with the small sample size, our data was collapsed over grade.

While these comparisons can in no way be considered conclusive, the results show such marked differences in favor of the effective teachers that further investigation is indeed warranted. In fact, ALT was from three to four times higher in the classrooms of the effective teachers.

While a portion of the magnitude of the differences can no doubt be accounted for by methodological and procedural differences between the two studies, the strength of the differences is noteworthy.

DISCUSSION

The results of this study support the necessity to consider student ability level as a potential confounding source when looking at variables such as allotted time, engagement rate, difficulty level, and academic learning time in the classroom. Differences by ability level showed a pattern of the special needs learner being significantly different from both the average and high ability student but not from the low ability student. These findings relative to the special needs learner have important implications for mainstreaming. That is, the mainstreamed student should be able to benefit from instruction provided in a regular classroom setting at least as well as regular classroom peers who are of lower ability but have never been considered candidates for special educational programming.

Table 1

Summary Analysis of Variance for Effect of Class and Ability for Reading

Variable	Ability $F_{3,33}$	Class $F_{11,33}$
Allotted Time	<1.00	91.78 ****
Engagement Rate	4.15 **	2.40 *
Easy Difficulty Rate	8.50 ****	3.55 **
Academic Learning Time	10.69 ****	11.23 ****

* $P < .05$; ** $P < .01$; *** $P < .001$; **** $P < .000$

Table 2

Summary Analysis of Variance for Effect of Class and Ability for Math

Variable	Ability $F_{3,33}$	Class $F_{11,33}$
Allotted Time	<1.00	33.26 ****
Engagement Rate	1.77	6.09 ****
Easy Difficulty Rate	12.06 ****	2.23 *
Academic Learning Time	6.49 ***	6.04 ****

* $P < .05$; ** $P < .01$; *** $P < .001$; **** $P < .000$

Table 3

Comparison of Group Means for Non-Select and Effective Teachers by Variable for Reading

Variable	Group					
	Non-Select Teachers (n=46)		Effective Teachers (n=12)			
	Grade 2	Grade 5	Special Needs	Low	Av.	High
Allotted Time (min.)	88	109	122	124	125.	123
Engagement Rate	.73	.74	.81	.82	.86	.91
Easy Difficulty Rate	.53	.48	.85	.87	.94	.98
Percentage of Time Engaged at Easy Difficulty	30	27	70	72	81	89
Academic Learning Time (min.)	26	29	84	87	99	110

Table 4

Comparison of Group Means for Non-Select and Effective Teachers by Variable for Math

Variable	Group					
	Non-Select Teachers (n=46)		Effective Teachers (n=12)			
	Grade 2	Grade 5	Special Needs	Low	Av.	High
Allotted Time (min.)	37	41	55	55	55	55
Engagement Rate	.72	.74	.82	.83	.84	.88
Easy Difficulty Rate	.51	.37	.78	.82	.93	.95
Percentage of Time Engaged at Easy Difficulty	26	21	66	69	79	84
Academic Learning Time (min.)	10	9	36	38	43	46

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DATA SUMMARY FOR THE IDENTIFIED EFFECTIVE TEACHING BEHAVIORS FOR MAINSTREAMING

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EC 150 309

BACKGROUND

The operational plan for the project called initially for the selection of regular classroom teachers who had previously demonstrated their effectiveness with special needs students functioning in the regular classroom setting. Teachers were selected based on the actual performance of special needs students in their classrooms. Students were assessed on a pre-post basis on academic, behavioral, social, and attitudinal variables. A series of criteria were established considering gains made by special needs students as well as gains made by the class at large for selection purposes. From an original pool of 33 elementary teachers, twelve teachers were identified as effective. Subsequently, extensive classroom observations were conducted in the classrooms of the twelve identified teachers in an effort to isolate characteristic teaching behaviors.

Following a comprehensive review process, over 70 variables were identified as worthy of consideration. These variables represent those that have been found to consistently relate to student performance outcomes based on previous process-product research findings. The specific variables chosen for inclusion are shown in Figure 1. The variables have been conceptualized within the framework of seven general categories: (1) Classroom Management; (2) Questioning Style; (3) Academic Learning Time; (4) Individualization; (5) Teaching Style; (6) Classroom Climate; and (7) Attitudinal Variables. Instrumentation was designed specifically for the project in order to provide data on each of the 74 variables being considered. Four modes of data collection were implemented: (1) Direct classroom observations; (2) teacher daily records; (3) teacher self-

Figure 1
Teaching Variables[a]

QUESTIONING STYLE

Volunteer Respondent (QP)
Student Selection (QP)
Narrow Questions (QP)
*Positive Feedback (QP)
*Sustaining Feedback (QP)
*Content Questions (QP)
*Low-order Questions (QP)
*Correct Student Response (QP)
**Criticism of Response (QP)

CLASSROOM CLIMATE

Movement-Free vs. Restricted (SOI)
Affective Environment (TOI)
Physical Environment (CM)
Noise Level Appropriateness (SI)
Non-Permissiveness (ORS)
Controlling Behavior (TOI)
Acceptance of Feelings (ORS)
Awareness of Feelings (ORS)
*Warmth (SI)
*Teacher Responsiveness (ORS)
*Teacher Fairness (ORS)
*Performance Expectation (ORS)
*Relationship with Students (ORS)
*Initiation of Student Contact (ORS)

INDIVIDUALIZATION

Time in Small Groups (SOI)
Time in Large Groups (SOI)
Teacher Time with Individuals (SOI)
Individualization of Work (SOI)
Grouping for Math (BI)
Checking Student Work (ORS)
*Ad Hoc Grouping (CM)
*Instructional Appropriateness (ORS)
*Grouping for Reading (BI)
*Attention to Individual Needs (SI & CM)

CLASSROOM MANAGEMENT

Supportive Response to Conduct Problems (ISI)
Supportive Response to High Severity Behavior (ISI)
Teacher Consistency (ORS)
Use of Praise (ORS)
*Supportive Response to Learning Problems (ISI)
*Supportive Response to Personality Problems (ISI)
*Supportive Response to Low Ability Students (ISI)
*Effective Use of Time (ORS)
*Total Supportive Response (ISI)
*Task Engagement Feedback (ISR & ISI)
*Variety of Interventions (ISI)
**Need for Discipline (ORS)
**Total Punitive Response (ISR)
**Punitive Intervention (ISR)
**Incidence of Intervention (ISR)

ACADEMIC LEARNING TIME

Allotted Time (DR)
Teacher Directed Time (ALT)
Student Directed Time (ALT)
*Easy Difficulty Level (ALT)
*Engagement Rate (ALT)
*Academic Learning Time (ALT & DR)
**Special Individual Work Time (DR)
**Unassigned Time (DR)
**Teacher Transition Time (ALT)
**Student Transition Time (ALT)
**Waiting-for-Help Time (ALT)
**Off-Task Time (ALT)
**Hard Difficulty Level (ALT)

TEACHING STYLE

Assignment of Tasks (SOI)
Assignment of Homework (CM)
*Teacher Flexibility (TOI)
*Lesson Structure (CM)
*Clarity (SI & ORS)
*Academic Feedback (CM)
*Active Involvement (SOI & ORS)

OPINION AND ATTITUDINAL VARIABLES

Situational Job Satisfaction (JSQ & EDS)
Educational Philosophy (TOI)
*Positive Attitude Toward Mainstreaming (TQM)
*Professional Job Satisfaction (JSQ & EDS)
*Scope of Professional Responsibility (TOI)
*Teacher Self-Perception of Competence (EDS)

[a] *Initials following each variable indicate the instrument used.*
* *High amount characteristic of effective teachers.*
** *Low amount characteristic of effective teachers.*

report; and (4) teacher and student interviews. Sixteen instruments were developed to provide the data necessary for assessing all of the selected variables. Figure 2 includes a list of all instruments and the corresponding data collection mode.

Since only twelve teachers were selected as effective, the data analysis was primarily based on means, ranges, and standard deviations. For each variable the following were considered: (1) Actual range of scores within a 20% range; (2) position of scores at either the high or low end of the continuum; and (3) a minimum of 10 of the 12 teachers within the desired range. Ultimately forty-two of the teaching behaviors were determined to be characteristic of teachers effective with mainstreamed students. These behaviors are designated in Figure 1 by one asterick (*) indicating that the effective teachers engaged in a high amount of the behavior and two astericks (**) indicating a low amount of the behavior to be characterists of the effective teachers.

Figure 2

Project Instruments

Instrument	Code	Data Collection Mode	Code
Signs of Individualization	SOI	Classroom Observation	O
Questioning Patterns	QP	Classroom Observation	O
Academic Learning Time	ALT	Classroom Observation	O
Intervention Strategy Record	ISR	Classroom Observation	O
Observer Rating Scale	ORS	Classroom Observation	O
Daily Record-Reading, Math	DR	Teacher Record	R
Intervention Strategy Inventory	ISI	Teacher Self-Report	S
Classroom Management Questionnaire	CM	Teacher Self-Report	S
Educational Dimension Survey	EDS	Teacher Self-Report	S
Job Satisfaction Questionnaire	JSQ	Teacher Self-Report	S
Teacher Opinion Inventory	TOI	Teacher Self-Report	S
Teacher Questionnaire on Mainstreaming	TQM	Teacher Self-Report	S
Philosophy of Education	PE	Teacher Self-Report	S
Background Information	BI	Teacher Interview	I
Reading Program Implementation	RPI	Teacher Interview	I
Math Program Implementation	MPI	Teacher Interview	I
Student Interview	SI	Student Interview	I

DATA SUMMARY EXPLANATION

The charts to follow summarize data for only those 42 variables which were determined to be characteristic of the teachers previously identified as effective with mainstreamed students. The organization of the charts corresponds with the category headings used in Figure 1. The charts provide reference information which is keyed to two other reports, namely:

(1) Descriptive Tables for Specific Teaching Behaviors of Selected Effective Teachers which is a series of tables reporting data for each variable by teacher and overall (see column 1 "Table Number "), and

(2) Instrumentation for Data Collection which includes copies of the 16 instruments developed to assess all of the selected teacher variables as well as other descriptive information on the development and administration of the instruments (see column 2 "Instrument Reference").

The "Data Collection Mode" and "Instrument" codes are identified in Figure 2. The charts also provide a variable definition, the specific measure used, the "critical" range of scores and the mean for the twelve effective teachers.

Data Summary for the Identified Effective Teaching Behaviors for Mainstreaming

QUESTIONING STYLE

Table Number	Identified Variable[a]	Collection Mode/ Instrument Instrument Reference	Variable Definition	Measure	Range or Result	Mean
4	Content Questions	O/QP pp. 8-11	% of content questions asked by the teacher	$\frac{C}{C+O+N}$	81-91%	87%
4	Low-order Questions	O/QP pp. 8-11	% of low-open and low-narrow content questions asked by teacher	$\frac{(L\text{-}O)+(L\text{-}N)}{C}$	89-100%	97%
4A	Criticism of Response	O/QP pp. 8-11	% of incorrect, criticised responses to content questions	$\frac{(I\text{-}C)}{C}$	0-1%	0.1%
4A	Correct Student Response	O/QP pp. 8-11	% of correct responses to content questions	$\frac{(C\text{-}P)+(C\text{-}N)}{C}$	66-89%	80%
4	Positive Feedback	O/QP pp. 8-11	% of student responses to content questions which were positively reinforced	$\frac{(C\text{-}P)+(I\text{-}S)}{C}$	77-98%	86%
4A	Sustaining Feedback	O/QP pp. 8-11	% of incorrect responses followed by sustaining feedback	$\frac{(I\text{-}S)+(I\text{-}N)+(I\text{-}C)\ \text{followed by another question}}{(I\text{-}S)+(I\text{-}N)+(I\text{-}C)}$	61-81%	69%

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[a] *Data for these variables pertain to total observations averaged across Reading and Math*

CLASSROOM CLIMATE

Table Number	Identified Variable	Collection Mode/ Instrument Instrument Reference	Variable Definition	Measure	Range or Result	Mean
29	Teacher/Classroom Warmth	I/SI p. 75	five questions on SI: #1,3,9,10,14; % of "yes" responses	$\frac{\text{"yes" responses}}{\text{total responses}}$	84-98%	92%
15	Teacher Responsiveness	O/ORS pp. 26-9	question #8 on ORS; % of teachers rated "Hi"	$\frac{\text{\#of teachers with "Hi" mean ratings}}{12}$	100%	"Hi"
15	Teacher Fairness	O/ORS pp. 26-9	question #6 on ORS; % of teachers rated "Hi"	$\frac{\text{\# of teachers with "Hi" mean ratings}}{12}$	100%	"Hi"
15	Performance Expectation	O/ORS pp. 26-9	question #7 on ORS; % of teachers rated "Hi"	$\frac{\text{\# of teachers with "Hi" mean ratings}}{12}$	100%	"Hi"
15	Relationship with Students	O/ORS pp. 26-9	question #5 on ORS; % of teachers rated "Hi"	$\frac{\text{\# of teachers with "Hi" mean ratings}}{12}$	83%	"Hi"
15	Teacher Initiation of Student Contact	O/ORS pp. 26-9	question #13 on ORS; % of teachers rated "Hi"	$\frac{\text{\# of teachers with "Hi" mean ratings}}{12}$	100%	"Hi"

INDIVIDUALIZATION

Table Number	Identified Variable	Collection Mode/ Instrument Instrument Reference	Variable Definition	Measure	Range or Result	Mean
15	Instructional Appropriateness	O/ORS pp. 54-6	question #10 on ORS; % of teachers with "Hi" mean rating	# of "Hi" mean ratings 12	100%	"Hi"
31	Grouping for Reading	I/BI p. 71	question #13 on BI; % of teachers reporting three or more groups for Reading	# of teachers with 3+ groups 12	100%	3+ groups
24	Ad–Hoc Grouping	S/CM pp. 54-6	items #7, 14, 25, 28 on CM; raw and % scores across 4 items	Σ four items maximum (4x4) or 16	10-14 rs 63-88%	12 76%
29	Teacher Attention to Student's Individual Needs (1)	I/SI p. 75	question #8 on SI; % of positive responses	positive responses to #8 total responses to #8	65-82%	66%
24	Teacher Attention to Student's Individual Needs (2)	S/CM pp. 54-6	items #5, 20, 31 on CM; raw and percent scores across 3 items	Σ three items maximum (3x4) or 12	10-12 rs 83-100%	11 92%

CLASSROOM MANAGEMENT

Table Number	Identified Variable	Collection Mode/ Instrument Instrument Reference	Variable Definition	Measure	Range or Result	Mean
21	Variety of Interventions	S/ISI pp. 42-53	% of different intervention types chosen on the ISI	# of different interventions chosen / total different types = 14	79-93%	83%
15	Efficient Use of Time	O/ORS pp. 26-9	question #14 on ORS; % of teachers with "Hi" mean rating	# of teachers with "Hi" mean rating / 12	83%	"Hi"
15	Absence of Need for Discipline	O/ORS pp. 26-9	question #16 on OSR; % of teachers with "Hi" mean rating	# of teachers with "Hi" mean rating / 12	83%	"Hi"
13	Task Engagement Feedback (TEF)	O/ISR pp. 30-41	% of interventions which were task engagement feedback to students	# of times teachers gave TEF / total # of interventions used	33-75%	48%
14	Incidence of Intervention	O/ISR pp. 30-41	# of interventions a teacher executed per hour	# of interventions observed – (TEF) / total time observed in hours = 4.2	0-5.7 per hr.	3.0 per hr.
13	Punitive Intervention	O/ISR pp. 30-41	punishing interventions observed on ISR; % of punishing interventions a teacher executed	# of punishing interventions used / total interventions observed	0-8%	4%
22	Total Punitive Response	S/ISI pp. 42-53	choice of punitive intervention on ISI; % of punitive options chosen	# of punitive interventions chosen / total # of items = 44	5-16%	13%

continued

CLASSROOM MANAGEMENT (CONT.)

Table Number	Identified Variable	Collection Mode/ Instrument Instrument Reference	Variable Definition	Measure	Range or Result	Mean
22	Total Supportive Response	S/ISI pp. 42-53	choice of supportive intervention on ISI;	$\frac{\text{\# of supportive interventions chosen}}{44}$	66-86%	75%
22	Supportive Response to Learning Problem Behaviors	S/ISI pp. 42-53	choice of supportive intervention on 12 learning problem items	$\frac{\text{\# of supportive interventions chosen}}{12}$	75-100%	81%
22	Supportive Response to Personality Problem Behaviors	S/ISI pp. 42-53	choice of supportive intervention on 16 learning problem items	$\frac{\text{\# of supportive interventions chosen}}{16}$	69-94%	76%
23	Supportive Response to Low Ability Students	S/ISI pp. 42-53	choice of supportive intervention for 6 low ability student items	$\frac{\text{\# of supportive interventions chosen}}{6}$	83-100%	83%

ACADEMIC LEARNING TIME[a]

Table Number	Identified Variable[a]	Collection Mode/ Instrument Instrument Reference	Variable Definition	Measure	Range or Result	Mean
18A	Unassigned Time	R/DR pp. 30-41	minutes of unassigned time (UA) recorded on the DR	$\frac{\text{\# of unassigned minutes}}{\text{total \# of minutes recorded}}$	0-23%	7.0%
8A	Teacher Transition Time	O/ALT pp. 12-22	minutes of teacher transition observed on the ALT	$\frac{\text{\# of teacher transition minutes}}{\text{total \# of minutes observed}}$	1.3-4.7%	3.0%
7A	Student Transition Time	O/ALT pp. 12-22	minutes of student transition observed on the ALT	$\frac{\text{\# of student transition minutes}}{\text{total \# of minutes observed}}$	2.1-7.8%	4.7%
7A	Waiting for Help Time	O/ALT pp. 12-22	minutes during which students were observed waiting for help on the ALT	$\frac{\text{\# of waiting-for-help minutes}}{\text{total \# of minutes observed}}$	0-1.2%	0.3%
7A	Off-Task Time	O/ALT pp. 12-22	minutes during which students were off-task on the ALT	$\frac{\text{\# of off-task minutes}}{\text{total \# of minutes observed}}$	3.2-13.7%	9.7%
18A	Special Individual Work Time	R/DR pp. 30-41	minutes of special individual worktime (SI) recorded on the DR	$\frac{\text{\# of special individual work minutes}}{\text{total \# of minutes recorded}}$	0-10%	4.0%

continued

ACADEMIC LEARNING TIME (CONT.)

Table Number	Identical Variable[a]	Collection Mode/ Instrument Instrument Reference	Variable Definition	Measure	Range or Result	Mean
6A	Easy Difficulty Level	O/ALT pp. 12-22	% of students' time spent at easy difficulty level	$\frac{\text{time spent at easy difficulty level}}{\text{total time}}$	81.3-100%	90.7%
6A	Hard Difficulty Level	O/ALT pp. 12-22	% of students' time spent at hard difficulty level	$\frac{\text{time spent at hard difficulty level}}{\text{total time}}$	0-3.2%	0.4%
7A	Engagement Rate	O/ALT pp. 12-22	minutes students observed to be engaged	$\frac{\text{\# of minutes students were engaged}}{\text{total \# of minutes observed}}$	72.5-93.7%	85.2%
12A	Academic Learning Time	O/ALT pp. 12-22 R/DR pp. 30-41	minutes students engaged in content area at easy difficulty level	engagement rate (x) allotted minutes (x) % of time at easy difficulty	73-122 min.	95.0 min.

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[a] *Data are specific to the Reading/Language Arts Block*

TEACHING STYLE

Table Number	Identified Variable	Collection Mode/ Instrument Instrument Reference	Variable Definition	Measure	Range or Result	Mean
24	Lesson Structure	S/CM pp. 54-6	seven items on CM: # 1, 6, 13, 22, 24, 26, 29; raw and % scores across 7 items	$\frac{\Sigma \text{ seven items (rs)}^{a}}{\text{maximum (7x4) or 28}}$	23-25 rs 82-89%	24 86%
29	Teacher Clarity/Instructional Effectiveness (1)	I/SI p. 75	seven questions on SI: #2,*4,5,7,*11,12, *13; % of positive student responses	$\frac{\text{positve response}}{\text{total responses}}$	78-94%	87%
15	Teacher Clarity/Instructional Effectiveness (2)	O/ORS pp. 26-9	question #9 on ORS; % of teachers with "Hi" mean rating	$\frac{\text{\# of teachers with ``Hi'' mean ratings}}{12}$	92%	"Hi"
24	Academic Feedback	S/CM pp. 54-6	four items on CM: #9, 17, 18, 35; raw and % scores across 4 items	$\frac{\Sigma \text{ four items (rs)}}{\text{maximum (4x4) or 16}}$	13-16 rs 81-100%	15 91%
15	Active Involvement (1)	O/ORS pp. 26-9	question #12 on ORS; % of teachers with "Hi" mean rating	$\frac{\text{\# of teachers with ``Hi'' mean rating}}{12}$	100%	"Hi"
1	Active Involvement (2)	O/SOI pp. 6-7	% of time teacher was actively working with students	$\frac{C+S+I}{C+S+I+N}$	100%	100%
27	Teacher Flexibility	S/TOI pp. 58-60	six items on the TOI: *1,*12, 14,*18, 21; raw and % scores across six items	$\frac{\Sigma \text{ six items}}{\text{maximum (6x5) or 30}}$	21-27 rs 70-90%	23 77%

[a] *rs=raw score*

* *reversed item*

TEACHER OPINION AND ATTITUDE

Table Number	Identified Variable	Collection Mode/ Instrument Instrument Reference	Variable Definition	Measure	Range or Result	Mean
26	Teacher Professional Job Satisfaction (1)	S/JSQ pp. 61-66	Σ twenty-two job-related items on JSQ	$\frac{\Sigma \text{ 22 job related items}}{\text{maximum (22x5) or 110}}$	69-107 rs[a] 72-97%	94.0 85%
25	Teacher Professional Job Satisfaction (2)	S/EDS p.57	three items on the EDS: #1, 12, 13; raw and % scores across 3 items	$\frac{\Sigma \text{ three items}}{\text{maximum (3x5) or 15}}$	10-15 rs 80-100%	13.0 87%
27	Teacher Scope of Responsibility	S/TOI pp. 58-60	six items on the TOI: # 19, 11,3, 6, 16, 23; raw and % scores across 6 items	$\frac{\Sigma \text{ six items}}{\text{maximum (6x5) or 30}}$	20-29 rs 77-97%	26.0 86%
25	Teacher Self-Perception	S/EDS p. 57	#4, #6 on EDS; raw and % scores across 2 items	$\frac{\Sigma \text{ two items}}{\text{maximum (2x5) or 10}}$	8-10 rs 80-100%	8.4 84%
28	Positive Attitude Toward Mainstreaming	S/TQM p.67	Σ twenty six items on TQM; raw scores	$\frac{\Sigma \text{ 26 items}}{\text{maximum (26x5) or 130}}$	84-113 rs	91.0

[a] *rs=raw score*

**reversed item*

EFFECTIVE TEACHING BEHAVIORS FOR MAINSTREAMING: A DESCRIPTIVE TEACHER PROFILE

Barbara Larrivee

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Background

With the enactment of P.L. 94-142 regular educators are being called on to meet new instructional and management challenges. State and local educational agencies have begun the process of retraining regular education teachers. However, no real body of knowledge exists to aid educators in selecting appropriate inservice training. Currently a variety of commercial materials are available ranging from comprehensive programs designed as total curriculums to individual modules and workshops concerned with a particular skill, attitude, or competency deemed relevant by their respective author. Yet it has not been established which skills are important for regular educators to master in order to effectively educate special needs children.

To date the requisite research has not been conducted which would clearly identify these essential teaching skills. In order to address this concern, the Bureau of Education for the Handicapped (BEH) funded a three-year Special Project (1978-1981) for the purpose of identifying those teaching behaviors which effect positive change in the special needs child's performance in the regular classroom.

Procedure

The operational plan for the project called initially for the selection of regular classroom teachers who had previously demonstrated their effectiveness with special needs, or maintreamed, students functioning in the regular classroom setting. Selection was based on the actual performance of special needs students over the school year.

During a prior BEH-funded inservice training project, a total of 33 elementary school teachers had received training earmarked to enhance their teaching skills to accommodate mainstreamed students. In order to evaluate the impact of the intensive training provided, all students in the classroom of the participating teachers were assessed on a pre-post basis on academic, behavioral, social, and attitudinal variables (Larrivee, 1980). For selection purposes, a series of criteria was established considering gains made by the special needs students as well as gains made by the total class (Larrivee, 1979). Gains on each of the student progress variables, as well as gain on an overall profile score obtained from a discriminant function analysis, were averaged over all students in all classes to provide a standard of comparison. Similar averages over special needs children in all classes were determined to provide a comparison for mainstreamed students in particular. A student was judged successful on a given variable if his or her gain exceeded the overall average gain, and a class was judged successful if its average gain exceeded the overall average gain. Effective teachers were defined as those teachers whose students showed gains above the expected gain on the majority of those variables assessed. From the original pool of 33 elementary teachers, twelve teachers were identified as meeting the dual-criteria of success with not only their mainstreamed students but also their class at large. Subsequently, these twelve teachers participated in the initial validation phase of the project.

Following a comprehensive review process, over 70 variables were identified to be included in the research design. These variables represented those that had been found to consistently relate to student performance outcomes based on previous process-product research findings. The specific variables chosen for inclusion are shown in Figure 1. The variables have been conceptualized within the framework of seven general categories: (1) Classroom Management; (2) Questioning Style; (3) Academic Learning Time; (4) Individualization; (5) Teaching Style; (6) Classroom Climate; and (7) Attitudinal Variables.

Insert Figure 1 about here

Method

Instrumentation was designed specifically for the project in order to provide data on each of the 74 variables being considered. Four modes of data collection were implemented: (1) Direct classroom observations; (2) teacher daily records; (3) teacher self-report; and (4) teacher and student interviews. Sixteen instruments were developed to provide the data necessary for assessing all of the selected variables. Figure 2 includes a list of all instruments and the corresponding data collection mode.

Insert Figure 2 about here

Data were collected over a five-month period during the second-half of the school year. A minimum of 20 classroom observations were conducted for each of the 12 identified teachers. Observations were conducted once per week. The observation scheme was designed to sample across days of the week, time of day, and activity type to ensure greater generalizability. Three coders were used to conduct the observations.

Analysis and Results

Extensive data analysis was performed in order to determine the degree of variability across teachers for each variable under consideration. Since only 12 teachers were selected as effective, the data analysis was primarily based on means, ranges, and standard deviations. For each variable the following were considered: (1) Actual range of scores within a 20% range; (2) position of scores at either the high or low end of the continuum; and (3) a minimum of 10 of the 12 teachers within the desired range. Ultimately 42 of the 68 teaching behaviors were determined to be characteristic of teachers effective with mainstreamed students. An additional four attitudinal variables characterized the effective teachers. These behaviors are designated in Figure 1 by one asterisk (*) indicating that the effective teachers engaged in a high amount of the behavior and two asterisks (**) indicating a low amount of the behavior to be characteristic of the effective teachers.

Of those behaviors identified, 26 resulted from classroom observational data, 10 from teacher self-report questionnaire data, two from teacher daily records, and four from teacher and student interviews. Sixty-two percent of the behaviors being studied were identified as effective teaching behaviors.

Discussion

Six of the behaviors determined to be characteristic of teachers effective with mainstreamed students were relative to questioning style. During the observation period all questions asked by the teacher were coded by type, difficulty, selection of student to respond, and feedback given to student answers. The findings showed that the identified teachers asked questions during content lessons which were specifically related to the contnet being covered. Their average use of content-specific questions represented 87% of their questions. Their questions were of low conceptual order 97% of the time and were generally answered correctly by students. The data revealed that the effective teachers received correct answers to their questions from the first student to respond an average of 80% of the time, indicative of their ability to gear their questions to their target group or individual. Another finding was that these teachers almost always gave positive or supportive feedback to students responding to their questions. In instances where students gave incorrect answers, the effective teachers followed-up by asking subsequent clarifying questions of the student. This was defined as using "sustaining feedback." Criticism of students' responses was observed on the average 0.1 percent of the time.

Those variables which were not identified as effective teaching strategies during quesion and answer periods were selection of volunteers to respond, selection of students either prior to or after posing the question, and asking narrow questions which required a single right answer. The effective teachers differed substantially on their use of these teaching behaviors.

Several of the identified behaviors were in the realm of classroom management. The successful teachers had a repertoire of intervention strategies at their command which they differentially administered as the situation warranted. While incidence of interventions was low, those that did occur were supportive rather than punitive. Some of the supportive behaviors engaged in included providing individual assistance, further explanation, encouragement, and affection. Punitive types of interventions were observed less than four percent of the time. Apparently the overall classroom management scheme for these teachers created an environment which served to prevent disruptive behavior since the need to discipline students was seldom observed. Contributing to their effective management was their ability to manage their time efficiently and their frequent use of task engagement feedback to reinforce on-task behavior. Some examples of task engagement feedback are reminding students to get back to work (non-punitively), drawing attention to the appropriate task, and asking questions about how work is going.

Another area in which data were collected was allocation of instructional time, sometimes referred to as "academic learning time" or ALT. In order to collect this data, selected students were observed on a minute-by-minute basis during a reading or language arts period. The results indicated that non-instructional time was minimal in the classrooms of the identified effective teachers. Some specific findings were that teacher transition time occurred on the average less than three percent of the time. This variable is defined as time taken to change from one activity to another, have students take their seats or quiet down before the next activity, or a variety of other instances where students are awaiting direction from the teacher. Other non-instructional time, such as student transition time, i.e., non-academic tasks like sharpening pencils, turning in papers, getting books, etc., was also happening infrequently, less than five percent of the time. Students were almost never found waiting for help from the teacher (0.3 percent of the time). That is, the effective teachers were able to manage their classroom in a manner which afforded them the opportunity to provide immediate help for those students in need.

Successful teachers managed their classrooms so that all their students spent most of their time engaged in learning activities. Their average engagement rate was 85%. Off-task time was minimal, as was time not assigned to learning tasks. Unassigned time averaged seven percent. Another important finding was their ability to provide instruction and assign learning activities which were at an appropriate instructional level for a variety of student ability levels. The percent of students' time spent at a hard difficulty level averaged 0.4 percent for the effective teachers. Hard difficulty level is defined as an inability to perform beyond a chance level of correct responses.

In the area of classroom climate, successful teachers were found to be highly responsive to their students and were perceived by their students as receptive and friendly, as indicated by their responses to the student interview. These teachers held high expectations for their students and frequently initiated contact with students. On a number of variables investigated in this category the effective teachers varied considerably. Whether or not free movement about the classroom was allowed or restricted was not found to be a factor which distinguished the effective teachers. Also, a variety of physical arrangements were in use, ranging from a more traditional row-by-row seating plan to an open environment where students moved about considerably. The degree of permissiveness as well as controlling behavior exercised also differed substantially among the effective teachers.

Some additional variables not identified included amount of instructional time spent in small groups versus large group instruction, amount of time teachers spent working with individual students, amount of in-class time spent checking students' work and amount of time students spent in teacher-directed as opposed to student-directed learning activities.

Several of the identified variables were categorized as teaching style variables. The effective teachers made clear presentations of lessons as evidenced by their students reporting that they understood assignments. Their lessons were well structured and generally preplanned. However, they did allow for flexibility in altering plans as the need arose. These teachers placed emphasis on academic feedback to students and were always actively involved with students.

The attitudinal variables that characterized the effective teachers were a positive attitude toward the mainstreaming philosophy, professional job satisfaction, sense of involvement (labeled "scope of professional responsibility"), and perceived teaching competence.

The results reported here suggest a tentative profile of the teacher effective with mainstreamed students. The successful teacher asks low-order questions which are most often answered correctly by students. Correct answers receive positive feedback, while incorrect answers receive supportive, clarifying feedback. Criticism is almost never used. The effective teacher is highly responsive to students and holds high expectations of them. In the classrooms of successful teachers, interventions are supportive, student contact is initiated, and on-task behavior is reinforced. Students work at their own instructional level, are appropriately engaged in learning activities, and seldom warrant disciplinary interventions.

The first phase of the study reported here identified characteristics of effective teachers defined in terms of average behaviors for the selected teachers studied. However, it remains to be determined whether there is an optimal cut-off point for the behaviors identified. If, in fact, there is an optimal level of performance for an individual behavior, the training objective would then be to attempt to have the teacher reach a mastery level specific to the given teaching behavior. An important corollary issue which is yet to be resolved is whether or not a ceiling level exists. That is, is there a point beyond which increased performance does not matter or may actually be counterproductive (i.e., become an ineffective practice)?

A final comment is warranted at this point. Although it might be possible to systematically identify generic teaching behaviors which one could advocate for teachers of mainstreamed students, given the extreme range of differences to be expected within the mainstreamed population, it would still be necessary to make selective use of the behaviors in order to accommodate individual student characteristics. For example, while we might be able to recommend the use of "sustaining feedback" as a general teaching strategy important for a teacher to master, some students may feel pressure and anxiety after having given an incorrect answer. Thus, it would be important for the teacher to use the behavior discriminatingly based on previous experience with the student.

The research reported here represents an initial attempt to provide an empirical base for teacher training efforts to prepare teachers to provide an appropriate education for mainstreamed students. A second-order validation phase is currently in progress involving 120 regular classroom teachers with mainstreamed students for the purpose of addressing the questions previously raised.

References

Larrivee, B. Assessing the impact on an intensive inservice training model on regular teachers and mainstreamed students. Teacher Education and Special Education, 1980, 3, 39-48.

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Figure 1
Teaching Variables[a]

QUESTIONING STYLE

Volunteer Respondent (QP)
Student Selection (QP)
Narrow Questions (QP)
*Positive Feedback (QP)
*Sustaining Feedback (QP)

*Content Questions (QP)
*Low-order Questions (QP)
*Correct Student Response (QP)
**Criticism of Response (QP)

CLASSROOM CLIMATE

Movement-Free vs. Restricted (SOI)
Affective Environment (TOI)
Physical Environment (CM)
Noise Level Appropriateness (SI)
Non-Permissiveness (ORS)
Controlling Behavior (TOI)
Acceptance of Feelings (ORS)

Awareness of Feelings (ORS)
*Warmth (SI)
*Teacher Responsiveness (ORS)
*Teacher Fairness (ORS)
*Performance Expectation (ORS)
*Relationship with Students (ORS)
*Initiation of Student Contact (ORS)

INDIVIDUALIZATION

Time in Small Groups (SOI)
Time in Large Groups (SOI)
Teacher Time with Individuals (SOI)
Individualization of Work (SOI)
Grouping for Math (BI)

Checking Student Work (ORS)
*Ad Hoc Grouping (CM)
*Instructional Appropriateness (ORS)
*Grouping for Reading (BI)
*Attention to Individual Needs (SI & CM)

CLASSROOM MANAGEMENT

Supportive Response to Conduct Problems (ISI)
Supportive Response to High Severity Behavior (ISI)
Teacher Consistency (ORS)
Use of Praise (ORS)
*Supportive Response to Learning Problems (ISI)
*Supportive Response to Personality Problems (ISI)
*Supportive Response to Low Ability Students (ISI)
*Effective Use of Time (ORS)

*Total Supportive Response (ISI)
*Task Engagement Feedback (ISR & ISI)
*Variety of Interventions (ISI)
**Need for Discipline (ORS)
**Total Punitive Response (ISR)
**Punitive Intervention (ISR)
**Incidence of Intervention (ISR)

ACADEMIC LEARNING TIME

Allotted Time (DR)
Teacher Directed Time (ALT)
Student Directed Time (ALT)
*Easy Difficulty Level (ALT)
*Engagement Rate (ALT)
*Academic Learning Time (ALT & DR)
**Special Individual Work Time (DR)

**Unassigned Time (DR)
**Teacher Transition Time (ALT)
**Student Transition Time (ALT)
**Waiting-for-Help Time (ALT)
**Off-Task Time (ALT)
**Hard Difficulty Level (ALT)

TEACHING STYLE

Assignment of Tasks (SOI)
Assignment of Homework (CM)
*Teacher Flexibility (TOI)
*Lesson Structure (CM)

*Clarity (SI & ORS)
*Academic Feedback (CM)
*Active Involvement (SOI & ORS)

OPINION AND ATTITUDINAL VARIABLES

Situational Job Satisfaction (JSQ & EDS)
Educational Philosophy (TOI)
*Positive Attitude Toward Mainstreaming (TQM)

*Professional Job Satisfaction (JSQ & EDS)
*Scope of Professional Responsibility (TOI)
*Teacher Self-Perception of Competence (EDS)

[a] ***Initials following each variable indicate the instrument used.***
****High amount characteristic of effective teachers.***
*****Low amount characteristic of effective teachers.***

Figure 2

Project Instruments

Instrument	Code	Data Collection Mode
Signs of Individualization	SOI	Classroom Observation
Questioning Patterns	QP	Classroom Observation
Academic Learning Time	ALT	Classroom Observation
Intervention Strategy Record	ISR	Classroom Observation
Observer Rating Scale	ORS	Classroom Observation
Daily Record-Reading, Math	DR	Teacher Record
Intervention Strategy Inventory	ISI	Teacher Self-Report
Classroom Management Questionnaire	CM	Teacher Self-Report
Educational Dimensions Survey	EDS	Teacher Self-Report
Job Satisfaction Questionnaire	JSQ	Teacher Self-Report
Teacher Opinion Inventory	TOI	Teacher Self-Report
Teacher Questionnaire on Mainstreaming	TQM	Teacher Self-Report
Philosophy of Education	PE	Teacher Self-Report
Background Information	BI	Teacher Interview
Reading Program Implementation	RPI	Teacher Interview
Math Program Implementation	MPI	Teacher Interview
Student Interview	SI	Student Interview

VALIDATION PHASE

FINAL PERFORMANCE REPORT

Barbara Larrivee

February 1982

(Grant No.: G00 780 1424)

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PREFACE

In 1978, the Rhode Island College Department of Special Education was awarded a three-year grant from the U.S. Office of Education, Bureau of Education for the Handicapped, Division of Personnel Preparation for the purpose of training regular educators. The ultimate goal of this project was to provide inservice training to regular classroom teachers which would promote the use of teaching behaviors which had been verified to positively effect the special needs child's performance in the regular classroom setting. This Special Project had, in addition to a training focus, a comprehensive research and development component.

The project entailed a three-level validation process. The first phase encompassed the identification of those teaching behaviors characteristic of teachers effective with mainstreamed students. Phase two involved the development of training materials designed specifically to foster the acquisition of those desired teaching behaviors identified in the initial phase. The final phase was intended to validate that use of the effective teaching behaviors would result in the expected positive performance of the mainstreamed child.

During Phase I, the operational plan for the project called initially for the selection of regular classroom teachers who had previously demonstrated their effectiveness with special needs students functioning in the regular classroom setting. Teachers were selected based on the actual performance of special needs students in their classrooms. Students were assessed on a pre-post basis on academic, behavioral, social, and attitudinal variables. A series of criteria were established considering gains made by special needs student as well as gains made by the class at large for selection purposes. From an original pool of thirty-three elementary teachers, twelve teachers were identified as effective. The reader is referred to Technical Reports #1 and #2 which describe the procedure for identification of the effective teachers.

Subsequently, more than twenty classroom observations were conducted in each of the classrooms of the twelve identified teachers in an effort to isolate characteristic teaching behaviors. Following a comprehensive review process, over seventy teaching variables were identified for careful study. These teaching variables were frequently related to student performance outcomes based on previous research findings. Variables were clustered into seven general categories: (1) Classroom Management, (2) Questioning Style, (3) Academic Learning Time, (4) Individualization, (5) Teaching Style, (6) Classroom Climate, and (7) Attitudinal Variables. Instrumentation was then designed to provide data on each of the seventy-four variables being considered. The reader is again referred to Technical Report #3 which describes the development and administration procedure for each of the instruments used for assessment purposes.

Four modes of data collection were employed: (1) direct classroom observations, (2) teacher daily records, (3) teacher self-report, and (4) teacher and student interviews. Sixteen different instruments were developed to provide the data necessary to assess all of the selected variables.

Because only twelve teachers were selected as highly effective, the data analysis was primarily based on means, ranges, and standard deviations. The following criteria were used to include a teaching variable as characteristic of effective teachers: (1) actual range of scores within a 20 percent range, (2) position of scores at either the high or low end of the continuum, and (3) a minimum of ten of the twelve teachers within the desired range.

Ultimately forty-two of the teaching behaviors were determined to be characteristic of teachers effective with mainstreamed students. Three Technical Reports provide detailed descriptive information on the identified teacher variables. Report #5 gives the specific variables identified. Report #6 provides the data tables and Report #7 consists of summary charts.

INTRODUCTION

The purpose of this report is to describe the final phase of the project. This phase was intended to validate the previously identified effective teaching behaviors for mainstreaming. As mentioned in a previous report, the initial results were based on extensive study of the classrooms of twelve carefully selected teachers who had demonstrated their effectiveness with mainstreamed students. Since only effective teachers were studied it is not possible to make direct comparisons with ineffective teachers. That is, it may be that some of the individual behaviors identified as characteristic of the effective teachers are also behaviors engaged in by less effective teachers. Thus, there is no guarantee that these characteristics actually distinguish successful from unsuccessful teachers. Therefore, a broader sample of teachers was earmarked for study in this final stage to ultimately determine which dimensions of teaching are related to the performance of mainstreamed students.

PROCEDURE

Activity Sequence

In order to implement Phase III of the project, an activity timeline was established to ensure accomplishment of the project's goals within the specified time allotment. This timeline is outlined below.

Validation Phase Activity Timeline

(1980-81)

Timeline	Activity
September-October, 1980	1. Identify schools for Project participation.
November - December, 1980	2. Identify regular classroom teachers with mainstreamed students to participate.
December, 1980	3. Identify mainstreamed students (i.e., students with an I.E.P. who spend anytime in the regular classroom).
December, 1980	4. Schedule observations and identify four students per class for observation purposes.
November - December 1980	5. Train observers in the use of the classroom observation instruments and establish appropriate reliability.
December 1980 - January 1981	6. Collect pre-assessment and background data on mainstreamed students in the above classrooms.
December 1980 - January 1981	7. Collect background information on participating teacher's training relative to mainstreaming.
January 1981 - March 1981	8. Collect observational data on participating teachers.
April - May 1981	9. Code, tabulate and analyze observation data to complete "Teacher Profiles".
May, 1981	10. Provide teachers with their "Teacher Profiles".
May - June 1981	11. Provide schools with inservice training materials to be used with teachers identified as needing skill training based on their "Teacher Profile" (if requested).
January - May 1981	12. Collect observational data on mainstreamed students.

Validation Phase Activity Timeline

(Continued)

Timeline	Activity
May 1981	13. Collect post-assessment data on mainstreamed students.
June - August 1981	14. Analyze data to determine relationship of use of effective teaching behaviors to student success.
September 1981	15. Report results to schools.

Teacher Sample Selection

Early in September letters were sent to school administrators informing them of the project's goals and requesting participation. Several meetings were scheduled to explain the project to interested local school administrators as well as classroom teachers. Administrators were asked to have teachers who were willing to participate complete a data sheet providing information relative to their mainstreamed students. This data was compiled and personal contacts were made to all teachers confirming their participation. This process identified 130 teachers; ultimately 118 of these teachers completed their participation in the project. Project participation involved classroom observations and completion of a variety of data gathering instruments. The specific requirements are delineated below.

Teacher Involvement Schedule

Classroom Observations	(a) Total of 4 hours or approximately 4 observations of about 60 minutes in length during reading/language arts instruction
	(b) To be conducted during January - April with each teacher being observed during a 4 consecutive week period
Providing Data and Information on Mainstreamed Student(s)	(c) Logistical information
	(d) Classroom adaptive behavior (checklist
Providing Personal Data	(e) Experience, training, background information
	(f) Questionnaire on teacher attitude
	(g) Intervention Strategy Inventory (ISI)
Compensation	(h) Stipend to be paid upon completion
	(i) Completed "Teacher Profile" resulting from data from classroom observations
	(j) Availability of training materials in teaching skill areas identified on the "Teacher Profile"

Comparative Descriptive Data for the Two Teacher Samples

Participating teachers taught in public elementary schools in kindergarten through grade six. A sample breakdown and comparison with the effective teacher sample is provided in Table 1. A total of seven communities across the state were represented in the original and validation study teacher samples. The teachers were from 30 different schools. This descriptive data on the two teacher samples is given in Table 2.

Table 3 provides data on class size, reading groups, and students with I.E.P.s for the two groups of teachers. Nearly half of the classrooms in both teacher samples had less than 25 students and half had 25 or more. While all of the effective teacher classrooms had at least three reading groups, 17 of the validation sample classrooms had two or less. Approximately two-thirds of both teacher samples reported having at least three students with I.E.P.s. However, 50% of the effective teachers, as compared to 35% of the sample teachers, had more than four students in their classrooms with I.E.P.s.

Mainstreamed Student Selection

Participating teachers were initially asked to complete forms providing specific information on their mainstreamed students. For the purposes of this project, mainstreamed students were defined as those students who had an Individualized Education Program (I.E.P.) and spent any time in a regular classroom. Teachers were to indicate the portion of the day each student was mainstreamed and the subject area(s). They also listed the

Table 1

Teacher Background Data by Sample

Item	Response Option	Effective Teacher Frequency	Effective Teacher Percent	Validation Study Frequency	Validation Study Percent
Grade Level Taught	K	0	0.0	7	5.9
	1-3	5	41.7	55	46.6
	4-6	7	58.3	56	47.5
Number of Years Teaching	1-9	3	25.0	22	18.6
	10+	9	75.0	96	81.4
Highest Degree Earned	BA	0	0.0	19	16.1
	BA+30	6	50.0	37	31.4
	MA	6	50.0	62	52.5

Table 2

Demographic Data by Teacher Sample

Community Code	Effective Teacher Frequency	Effective Teacher Number of Schools	Validation Study Frequency	Validation Study Number of Schools
1	2	1	73	15
2	6	5	10	2
3	0	-	15	1
4	2	2	10	1
5	0	-	7	2
6	0	-	3	2
7	2	1	0	-
Total 7	12	9	118	23

Table 3

Classroom Descriptive Data by Teacher Sample

		Sample			
		Effective Teacher		Validation Study	
Item	Response Option	Frequency	Percent	Frequency	Percent
Class Size	< 25	6	50.0	55	46.6
	≥ 25	6	50.0	63	53.4
Reading Groups	1-2	0	0.0	17	14.4
	3	10	83.3	80	67.8
	4+	2	16.7	21	17.8
Students with IEP	0	1	8.3	4	3.4
	1-2	3	25.0	34	28.8
	3-4	2	16.7	39	33.1
	4+	6	50.0	41	34.7

type of special services provided, such as special class placement, resource room program, speech and language, etc. From these data sheets a single student was selected to be "tracked" in each classroom.

Data were compiled for all mainstreamed students and classification categories were determined based on the type of services received and amount of time spent in the regular classroom. The mainstreamed student sample was then randomly selected to represent these categories proportionately. Since it was also necessary to observe the selected student during the reading/language arts block in the regular classroom, some substitutions were required when the selected student could not be observed. The descriptive breakdown for the final mainstreamed student sample is provided in Table 4. In four classrooms there were no students with I.E.P.s, thus a student who was in referral and would likely receive special services at a later date was selected. The majority of the students in the sample were classified as learning disabled. The number of students representing each handicapping condition category is given in Table 5.

Representative Regular Student Selection

The research design incorporated comparison of mainstreamed students with their regular classroom peers for some variables. In order to provide a representative sample of regular students, the sample was selected from ability groups for reading. Teachers were provided with instructions to follow the procedural steps listed below.

Teacher Directions for
Selection of Three Regular Students for Observation

I. If you have three reading groups, follow the steps below.

1. List students in each group in alphabetical order.
2. Arrange the three groups in relative order of ability as follows: (1) low, (2) average, and (3) high ability.
3. Select the third student from each list.
4. List the three selected students on your sheet.
5. Identify any student that was selected that may not be typical of that group, i.e., goes out to specialist during the observation period, is frequently absent, has already been selected as your special needs student, etc. and substitute a more suitable student.

II. If you have less than three reading groups:

Classify your students into three ability groups and then follow the above procedure.

III. If you have four reading groups:

Eliminate the group having your selected special needs (IEP) student and then follow the above procedure.

IV. If you have five or more reading groups arrange them in ability order and select the third student from the top group and from the lowest group. Combine all the middle groups and select the third student from the combined group.

Table 4

Description of Services for the Mainstreamed Student Sample

(n = 118)

Placement and Services Provided	Number of Students
Placed in a self-contained special education class and mainstreamed into a regular classroom	13
Placed in a regular classroom and provided services in a resource room program	60
Placed in a regular classroom and provided with both resource room and speech and language services	15
Placed in a regular classroom and receiving only speech and language services	21
Placed in a regular classroom and receiving no direct services for academic subjects	5
In referral process but currently receiving no services (no I.E.P. as yet)	4

Table 5

Handicapping Condition Classification for the Mainstreamed Student Sample

Condition	Number of Students
Learning Disabled	
Mild	83
Moderate or multiple classification	10
Behaviorally Disordered	3
Speech Impaired	17
Hearing Impaired	1
In Referral	4

Training of Observers

During the fall four observers with regular and special education classroom experience were selected. Training occurred during the two-month period prior to beginning the classroom observations for the teacher sample. The observers were trained to use three data recording instruments (Academic Learning Time, Questioning Patterns, and Intervention Strategy Record) and one rating scale (Observer Rating Scale) to be recorded in the classroom setting. Copies of these instruments and coding procedures can be found in an earlier report (Report #3).

During initial training, typed scripts and audio cassettes of actual classroom dialogue were used for practice sessions. When observers became proficient using the coding systems, video tapes and direct observation in classrooms were used to provide further experience with the instruments. To insure thorough knowledge of the use of the instruments and to establish inter-coder agreement, three criterion measures were taken. These were conducted in actual classrooms with all four observers coding simultaneously. Technical data on inter-coder agreement and reliability was computed and determined to be more than adequate.

Classroom Observations

To facilitate the scheduling process, the period of time allotted to conduct the classroom observations was divided into three five-week cycles. During each cycle, one-third of the teachers, or approximately 40, were observed. The observation scheme called for each teacher to be observed on four occasions, once per week for four consecutive weeks. The fifth week was used for any make-ups necessitated by cancellations or other scheduling problems that may have occurred.

Each of the four observers observed approximately ten teachers during each of the three cycles. They were responsible for scheduling with each of their teachers as well as supervising the selection procedure for the mainstreamed student and the regular student sample. They also distributed and collected the other data gathering instruments used in the project.

RESEARCH DESIGN

Validation of the Model

In order to validate the previously identified effective teaching behaviors, the research design was extended to consider student variables and contextual variables. In this final phase of the data analysis, mean scores were determined for the sample of 118 teachers on each of the teaching variables to allow for comparison with the scores of the effective teacher sample. In addition, the design considered the relationship of the use of the identified teaching variables to the success of the mainstreamed student.

Instrumentation

The new data collection scheme necessitated the inclusion of several instruments not used in the initial phase. All of the classroom observation instruments as well as several of the teacher self-report instruments were used in the first phase of the study. The new instruments and questionnaires provided data on teacher background and training, classroom and school context and characteristics, programming, and performance of mainstreamed students. Figure 2 includes a list of all instruments and the corresponding data collection mode and code. Instruments not contained in the original report on project instrumentation (Report #3) can be found in the appendix.

Teacher, Student, and Contextual Variables Considered

The original study of the identified effective teachers considered 68 teaching behaviors and six attitudinal variables. Ultimately 42 of the teaching behaviors and an additional four teacher attitude variables were determined to be characteristic of the teachers effective with mainstreamed students. The identified variables are indicated in Figure 1.

For this phase of the study, budgetory and time constraints prohibited the inclusion of all of the 46 previously identified variables. An attempt was made to include as many variables as possible while limiting the hours of observation required as well as teacher time necessary for completion

Figure 1
Teaching Variables[a]

QUESTIONING STYLE

Volunteer Respondent (QP)
Student Selection (QP)
Narrow Questions (QP)
*Positive Feedback (QP)
*Sustaining Feedback (QP)
*Content Questions (QP)
*Low-order Questions (QP)
*Correct Student Response (QP)
**Criticism of Response (QP)

CLASSROOM CLIMATE

Movement-Free vs. Restricted (SOI)
Affective Environment (TOI)
Physical Environment (CM)
Noise Level Appropriateness (SI)
Non-Permissiveness (ORS)
Controlling Behavior (TOI)
Acceptance of Feelings (ORS)
Awareness of Feelings (ORS)
*Warmth (SI)
*Teacher Responsiveness (ORS)
*Teacher Fairness (ORS)
*Performance Expectation (ORS)
*Relationship with Students (ORS)
*Initiation of Student Contact (ORS)

INDIVIDUALIZATION

Time in Small Groups (SOI)
Time in Large Groups (SOI)
Teacher Time with Individuals (SOI)
Individualization of Work (SOI)
Grouping for Math (BI)
Checking Student Work (ORS)
*Ad Hoc Grouping (CM)
*Instructional Appropriateness (ORS)
*Grouping for Reading (BI)
*Attention to Individual Needs (SI & CM)

CLASSROOM MANAGEMENT

Supportive Response to Conduct Problems (ISI)
Supportive Response to High Severity Behavior (ISI)
Teacher Consistency (ORS)
Use of Praise (ORS)
*Supportive Response to Learning Problems (ISI)
*Supportive Response to Personality Problems (ISI)
*Supportive Response to Low Ability Students (ISI)
*Effective Use of Time (ORS)
*Total Supportive Response (ISI)
*Task Engagement Feedback (ISR & ISI)
*Variety of Interventions (ISI)
**Need for Discipline (ORS)
**Total Punitive Response (ISR)
**Punitive Intervention (ISR)
**Incidence of Intervention (ISR)

ACADEMIC LEARNING TIME

Allotted Time (DR)
Teacher Directed Time (ALT)
Student Directed Time (ALT)
*Easy Difficulty Level (ALT)
*Engagement Rate (ALT)
*Academic Learning Time (ALT & DR)
**Special Individual Work Time (DR)
**Unassigned Time (DR)
**Teacher Transition Time (ALT)
**Student Transition Time (ALT)
**Waiting-for-Help Time (ALT)
**Off-Task Time (ALT)
**Hard Difficulty Level (ALT)

TEACHING STYLE

Assignment of Tasks (SOI)
Assignment of Homework (CM)
*Teacher Flexibility (TOI)
*Lesson Structure (CM)
*Clarity (SI & ORS)
*Academic Feedback (CM)
*Active Involvement (SOI & ORS)

OPINION AND ATTITUDINAL VARIABLES

Situational Job Satisfaction (JSQ & EDS)
Educational Philosophy (TOI)
*Positive Attitude Toward Mainstreaming (TQM)
*Professional Job Satisfaction (JSQ & EDS)
*Scope of Professional Responsibility (TOI)
*Teacher Self-Perception of Competence (EDS)

[a] *Initials following each variable indicate the instrument used.*
**High amount characteristic of effective teachers.*
***Low amount characteristic of effective teachers.*

Figure 2

Project Instruments

Instrument	Code	Data Collection Mode	Code
Questioning Patterns	QP	Classroom Observation	CO
Academic Learning Time	ALT	Classroom Observation	CO
Intervention Strategy Record	ISR	Classroom Observation	CO
Observer Rating Scale	ORS	Classroom Observation	CO
Intervention Strategy Inventory	ISI	Teacher Self-Report	TS
Teacher Questionnaire	TQ	Teacher Self-Report	TS
Mainstreaming Attitude Survey	MAS	Teacher Self-Report	TS
I.E.P. Data Record	DR	File Review	FR
Devereux Elementary School Behavior Rating Scale	DESB	Teacher Rating of Student	TR
Sociogram	SG	Student Administered	SA
Standardized Reading Achievement Test	RA	Student Administered	SA

of project instruments and questionnaires. Ultimately 33 teaching behaviors and one teacher attitude variable were retained for data collection purposes during the validation phase.

All of the variables being considered were classified under the general headings of teacher, student, and school contextual variables. These categories were further subdivided to indicate specific variable components. Under the teacher variable category, teaching behaviors are distinguished from teaching variables. A behavior is defined as being specific and quantifiable while a variable could be a series of behaviors serving to create a classroom condition or an indirect result of a teaching behavior(s). Teacher training and teacher attitude variables were also specified. However, the terms behavior and variable are oftentimes used interchangeably in this report for the purpose of simplicity.

Student variables have been classified as relating to personal characteristics or aspects of instructional programming. A third category is performance measures used to represent indicators of success or achievement. Contextual variables have been broken down by classroom and school level. Figure 3 presents a summary of the classification scheme.

Summarizing, 42 teacher variables have been included for the second-order analysis. A total of 27 student variables and eight contextual variables are also included in the design. Adjusting for variable duplication across categories, a grand total of 69 variables have been considered. Figure 4 provides the total variable list with the corresponding data collection instrument and the variable category (code).

Figure 3

Variable Category Classification

Teacher Variables	TB - Teaching Behavior[a] TV - Teaching Variable[b] TT - Teacher Training and Background TA - Teacher Attitude and Opinion
Student Variables	SC - Student Characteristic IP - Instructional Program PM - Performance Measure
School Contextual Variables	CC - Classroom Context SE - School Environment

[a] A Specific, quantifiable behavior

[b] A series of behaviors creating a classroom condition; an indirect result of a teaching behavior(s); or a teacher self-report variable

Figure 4

Project Variable List

Instrument	Variable	Variable Category Code
Questioning Patterns	Content Questions	TB
	Low-order Questions	TB
	Correct Student Response	TV
	Criticism of Response	TB
	Positive Feedback	TB
	Sustaining Feedback	TB
Academic Learning Time	Teacher Transition Time	TB
	Student Transition Time	TV
	Waiting for Help Time	TV
	Off-Task Time	TV, SC, PM
	Easy Difficulty Level	TV
	Hard Difficulty Level	TV
	Engagement Rate	TV, SC, PM
	Academic Learning Time	TV, SC, PM
Intervention Strategy Record	Task Engagement Feedback	TB
	Incidence of Intervention	TV
	Punitive Intervention	TB
Observer Rating Scale	Instructional Appropriateness	TV
	Teacher Responsiveness	TV
	Teacher Fairness	TV

Project Variable List
(Continued)

Instrument	Variable	Variable Category Code
Observer Rating Scale (Continued)	Performance Expectation	TV
	Relationship with Students	TV
	Initiation of Student Contact	TB
	Efficient Use of Time	TV
	Need for Discipline	TV
	Teacher Clarity	TV
	Active Involvement	TB
Intervention Strategy Inventory	Total Supportive Response	TV
	Supportive Response to Learning Problems	TV
	Supportive Response to Personality Problems	TV
	Supportive Response to Low Ability Students	TV
	Variety of Interventions	TV
	Total Punitive Response	TV
Teacher Questionnaire	Grade Level	CC
	Class Size	CC
	No. of Mainstreamed Students	CC, IP
	Ratio of Mainstreamed Students to Regular	CC, IP
	Time Allotted to Reading/Language Arts	CC, IP
	No. of Reading Groups	CC

Project Variable List
(Continued)

Instrument	Variable	Variable Category Code
Teacher Questionnaire (Continued)	Years of Teaching Experience	TT
	Highest Degree	TT
	Years of Experience with Mainstreamed Students	TT
	Special Education College Courses	TT
	Special Education Inservice Courses	TT
	Rating of Administrative Support	TA, SE
	Rating of Support Services	TA, SE
	Rating of Success with Mainstreamed Students	TA
Mainstreaming Attitude Survey	Positive Attitude Toward Mainstreaming	TA
I.E.P. Data Record	Amount of Time with Resource Teacher (and/or Specialist)	IP
	Length of Time Mainstreamed	SC
	Length of Time with an I.E.P.	SC
	Type of Handicapping Condition	SC
	Mainstreamed Student's Age	SC
	Reading Achievement Pre-test	SC, PM
Devereux Elementary School Behavior Rating Scale	Maladaptive Classroom Behavior (Summative score)	SC, PM (all)
	Factor scores for:	
	(1) Classroom Disturbance	
	(2) Impatience	
	(3) Disrespect - Defiance	

Project Variable List
(Continued)

Instrument	Variable	Variable Category Code
Devereux Elementary School Behavior Rating Scale (Continued)	(4) External Blame	
	(5) Achievement Anxiety	
	(6) External Reliance	
	(7) Comprehension	
	(8) Inattentive - Withdrawn	
	(9) Irrelevant - Responsiveness	
	(10) Creative Initiative	
	(11) Need Closeness to Teacher	
Sociogram	Social Status or Peer Acceptance	SC, PM
	Self-rating of Peer Acceptance	SC, PM
Standardized Reading Achievement Test	Reading Achievement Pre and Post	SC, PM

Observation Schedule

Classroom observations began in January and continued for fifteen weeks, exclusive of school vacation periods. The observation scheme called for coding of the Academic Learning Time (ALT) and the Intervention Strategy Record (ISR) concurrently. The Questioning Pattern (QP) was coded either prior to or after the ALT and ISR . At the end of the observation period the Observer Rating Scale (ORS) was completed. Each instrument was used on four occasions. Figure 5 provides specific information on the amount of coding time for each instrument.

RESULTS

Comparison of the Two Teacher Samples

This section includes a series of thirteen tables giving comparative scores for the validation study teacher sample (n=118) and the effective teacher sample (n=12). The tables are organized by data collection instrument. The first ten tables (Tables 6-15) present data from direct classroom observations using the QP, ALT, ISR and ORS. Tables 16-18 provide data from teacher self-report instruments (ISI and MAS).

Comparison of mean scores by variable for the two samples was made in order to identify variables showing considerable difference for the two groups of teachers. Such mean differences would indicate that the effective teachers engaged in a higher (or lower) amount of the behavior than the sample teachers, thereby identifying a potential area for teacher training emphasis.

Figure 5

Data Collection Schedule
for Classroom Observations

Instrument	Length of Each Observation (in minutes)	Number of Observations	Total Time (in minutes)
Questioning Pattern (QP)	15	4	60
Intervention Strategy Record (ISR)	42	4	168
Academic Learning Time (ALT)	30 - 45	4	120 - 180
Observer Rating Scale (ORS)	60	4	240

Of the Questioning Patterns variables (Table 6), the variable showing the greatest difference was sustaining feedback, with the effective teacher sample engaging in approximately 16% more of the behavior than the validation sample. Effective teachers also asked more organizational and non-content, personal questions and subsequently about 10% less content-related questions. Additionally, the effective teachers selected students to respond before asking a question twice as often as the sample teachers (35.8 versus 17.8). Considering combined categories (Table 7), the effective teachers asked questions which received correct student responses about 6% more often than the comparative sample.

Allocation of time by activity type is shown in Table 8. The major difference between the two teacher groups was that the effective teachers spent on the average 11% more time engaging their students in a question and answer format and subsequently 11% less time providing for recitation and drill. Percent of time spent in student-directed versus teacher directed activities for the two teacher samples showed no apparent differences (Table 9).

The mean percent of time spent at each difficulty level by student ability is reported in Table 10. The data reveals that special needs learners (i.e., students with I.E.P.s) spent approximately 14% more of their time working at an easy difficulty level in the effective teacher classrooms. Low and average ability students spent 13% and 11%, respectively, more time at an easy difficulty level in these classrooms.

Table 6

Mean Frequency and Percent for Each Category of the Questioning Patterns (QP) by Teacher Sample

Category	Option	Sample			
		Effective Teacher		Validation Study	
		Mean	Percent	Mean	Percent
Type	1. content	143.1	88.4	137.2	97.8
	2. organizational	11.7	7.2	1.9	1.4
	3. non-content	7.1	4.4	1.0	0.8
Response level	1. low-narrow	107.8	75.4	110.7	78.9
	2. low-open	29.5	20.6	19.7	14.1
	3. high-narrow	7.4	5.2	4.3	3.1
	4. high-open	.3	0.2	2.2	1.6
Student selection	1. before-volunteer	1.3	0.9	0.9	0.7
	2. before-non-volunteer	50.0	34.9	24.5	17.1
	3. after-volunteer	66.5	46.5	68.3	49.2
	4. after-non-volunteer	5.5	3.8	29.0	20.8
	5. defined	23.3	16.2	14.4	10.0
Response-feedback	1. correct positive	101.1	70.6	98.1	70.1
	2. correct neutral	20.3	14.2	12.5	8.9
	3. incorrect supportive	19.6	13.7	23.2	16.4
	4. incorrect neutral	3.4	2.4	2.9	2.1
	5. incorrect criticizing	0.3	0.2	0.4	0.3
	6. sustaining feedback [a]	16.3	70.3	14.5	53.9

[a] This variable was derived by computing the percent of incorrect responses which were followed by another clarifying or helping question to the same student

Table 7

Mean Frequency and Percent for Combined Categories of the QP by Teacher Sample

Question Category	Sample			
	Effective Teacher		Validation Study	
	Mean	Percent	Mean	Percent
Narrow (1+3)	115.2	80.6	115.0	82.0
Low Order (1+2)	137.3	96.0	130.4	93.0
Volunteer Selected (1+3)	67.8	47.4	69.2	49.9
Selection After (3+4)	72.0	50.3	97.3	70.0
Positive Feedback (1+3)	120.7	84.3	121.3	86.5
Response Correct (1+2)	121.4	84.8	110.6	79.0

Table 8

Mean Percentage of Time Observed in Each Activity Type from the ALT by Student Ability Level and by Teacher Sample

Activity Type	Sample															
	Effective Teacher								Validation Study							
	Special Needs		Low		Average		High		Special Needs		Low		Average		High	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Seatwork	50	35	53	34	57	37	58	37	49	20	54	20	54	19	55	21
Question and Answer	31	32	34	34	31	37	30	35	22	18	20	19	19	14	19	15
Recitation, Drill	5	13	4	10	3	11	3	10	15	17	14	17	14	15	13	16
Demonstration, Lecture	4	7	4	8	4	8	3	7	8	9	8	9	8	9	8	10
Discussion	1	7	1	7	1	7	1	7	1	3	1	6	1	3	1	3
Special Individual Work	6	18	4	11	1	4	1	3	2	4	2	6	1	3	1	4
Unassigned Activities	2	10	0	0	2	8	2	9	2	7	3	7	3	7	3	7

Table 9

Mean Percent of Time Spent in Student Directed and Teacher Directed Activities from the Academic Learning Time by Student Ability Level and by Teacher Sample

	Sample																			
	Effective Teacher										Validation Study									
Activity Type	Special Needs		Low		Average		High		Total		Special Needs		Low		Average		High		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Student Directed	50.6	35	52.6	34	58.6	37	60.0	38	55.4	36	51.5	19	56.0	21	57.4	19	58.0	21	55.7	20
Teacher Directed	48.1	35	46.0	34	39.9	38	38.3	37	43.1	36	48.0	19	45.6	29	42.8	19	42.4	20	44.7	22

Table 10

Mean Proportion of Total Time Spent at Each Difficulty Level from the Academic Learning Time by Student Ability Level and by Teacher Sample

	Sample																			
	Effective Teacher										Validation Study									
	Special Needs		Low		Average		High		Total		Special Needs		Low		Average		High		Total	
Difficulty Level	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Easy	84.3	26	86.6	24	94.0	18	98.1	11	90.7	21	70.5	29	74.0	25	83.4	21	91.3	13	79.8	22
Medium	13.4	23	11.2	22	4.2	13	0.6	2	7.4	18	28.7	27	25.3	24	16.6	21	8.4	13	19.8	21
Hard	0.7	5	0.7	6	0.0	0	0.0	0	0.4	4	0.9	4	0.0	0	0.0	0	0.0	0	0.2	1

Table 11 reports the proportion of engaged and non-engaged time by teacher sample. Differences were not substantial on these variables, with the possible exception of teacher transition time which represented 3% of the time for the effective teacher sample and 5% for the validation study sample.

Academic Learning Time (ALT), defined as the amount of time engaged in reading-related tasks which are at an appropriate difficulty level, is reported in Table 12. As can be seen, allotted time differed by only five minutes with the validation study sample alloting the additional time to reading and related activities. However, in terms of ALT, the effective teachers averaged 95 minutes as compared to 89.8 minutes for the sample teachers.

Considering types of interventions used by the two teacher samples, the greatest difference was in use of "task engagement feedback". Effective teachers gave feedback related to the task at hand approximately 10% more often than the sample teachers (Table 13). Other differences included greater use of planned ignoring, redirecting, and punishing by the validation study sample. The effective teachers used supportive interventions about 5% more often than the sample teachers.

Incidence of intervention, reported as the number of occurrences per hour, differed dramatically for the two teacher samples. As shown in Table 14 the incident rate for the validation study sample was more than twice as high as the rate for the effective teacher sample. Effective teachers intervened on the average three times per hour, while the sample teachers intervened in excess of six times per hour.

Table 11

Proportion of Engaged and Non-Engaged Time
from the ALT by Student Ability Level and by Teacher Sample

	Sample									
	Effective Teacher					Validation Study				
Time	Special Needs	Low	Average	High	Total	Special Needs	Low	Average	High	Total
Engaged	78.2	79.0	83.0	88.8	82.3	81.9	81.8	82.4	85.9	83.0
Non-Engaged										
Teacher Transition	3.5	2.7	3.6	2.3	3.0	5.1	4.9	5.0	4.8	5.0
Student Transition	4.9	5.3	4.8	3.6	4.7	3.4	3.2	3.1	2.6	3.1
Waiting for Help	0.5	0.5	0.3	0.1	0.3	0.2	0.3	0.2	0.1	0.2
Off-Task	12.9	12.5	8.5	5.1	9.7	10.0	9.3	9.5	6.6	8.9

Table 12

Mean Academic Learning Time[a]
by Student Ability Level and by Teacher Sample

Academic Learning Time Variable	Sample									
	Effective Teacher					Validation Study				
	Special Needs	Low	Average	High	Total	Special Needs	Low	Average	High	Total
Allotted Time (AT) (in minutes)	122	124	125	123	123	117	130	130	130	127
Engagement Rate (ER) (percentage)	81.6	81.5	86.4	91.1	85.2	86.4	86.2	86.9	90.4	87.5
Time Spent at Easy Difficulty Level (EDL) (percentage)	84.3	86.6	94.0	98.1	90.8	70.5	74.0	83.4	91.3	79.8
Academic Learning Time (ALT) (in minutes)	84.3	86.9	99.1	109.7	95.0	72.2	85.2	93.8	107.9	89.8

[a] Academic Learning Time (ALT) is computed as the product of (AT) x (ER) x (EDL).

Table 13

Frequency, Mean and Percent of Use of Each Intervention from the Intervention Strategy Record (ISR) by Teacher Sample

Intervention Type	Sample					
	Effective Teacher[a]			Validation Study[b]		
	Frequency	Mean	Percent	Frequency	Mean	Percent
Planned Ignoring	0	0	0.0	243	2.1	7.4
Signal Interference	36	3.0	12.8	389	3.3	11.9
Modeling	23	1.9	8.2	222	1.9	6.8
Redirecting	10	0.8	3.6	282	2.4	8.6
Supporting	69	5.8	24.6	648	5.5	19.9
Use of Reinforcers	3	0.3	1.1	83	0.7	2.5
Punishing	8	0.7	2.8	185	1.6	5.7
Task Engagement Feedback	132	11.0	47.0	1211	10.3	37.1
Total	281	23.4	100.0	3263	27.7	100.0

[a] Mean is based on a total of 252 minutes (4.2 hours) of observation

[b] Mean is based on a total of 168 minutes (2.8 hours) of observation

Table 14

Mean Frequency and Percent of Intervention Types from the ISR by Teacher Sample

Intervention Category	Effective Teacher		Validation Study	
	Frequency	Percent	Frequency	Percent
Total Neutral Interventions	4.9	39.5	7.3	41.5
Total Positive Interventions	6.8	54.8	8.7	49.4
Punitive Interventions	0.7	5.6	1.6	9.1
Total Interventions[a]	12.4	-	17.6	-
Incidence of Intervention [a,b]	3.0	-	6.2	-
Task Engagement Feedback	11.0	47.3	10.3	36.9
Incidence of Task Engagement Feedback[b]	2.6	-	3.7	-

[a] Task engagement feedback interventions are not included in this figure

[b] Incidence is defined as the number of occurrences per hour

The observers rated each teacher on 18 variables on the Observer Rating Scale. Ten of these variables were identified as characteristic of the effective teachers studied. These variables are identified in Table 15 by an asterick. The scale was a three-point scale ranging from high to low. The analysis considered the percentage of teachers receiving a "high" rating. For six of the ten identified variables in excess of 20% more of the effective teachers received a high rating. The greatest difference was for instructional appropriateness. While 100% of the effective teachers were rated as providing for individual differences in their instructional planning, only half, or 50%, of the sample teachers received similar ratings. For initiating student contact, 60% of the sample teachers were rated high as compared to 100% of the effective teachers. Differences favoring the effective teachers on the variables labeled performance expectation, attention to students (teacher responsiveness), need for discipline, and teacher fairness ranged from 36% to 21%, respectively. Variable definitions can be found in the summary table to follow (Table 19).

The Intervention Strategy Inventory (ISI) was a teacher self-report instrument used to supplement data from the Intervention Strategy Record (ISR). As can be seen in Table 16, the two teacher samples were very similar in their responses. In Table 17, the data from the ISI is organized by problem-type (conduct, learning, and personality). The greatest difference was that the effective teachers chose supportive intervention options 76% of the time for personality-type problems as compared to 67% for the sample teachers.

Table 15

Frequency and Percent of Ratings by Category from the Observer Rating Scale (ORS) by Grade and by Teacher Sample

Category	Sample					
	Effective Teacher			Validation Study		
	High	Av.	Low	High	Av.	Low
Classroom Climate						
Cooperation	9(75)	3(25)	0(0)	58(49)	56(48)	4(3)
Warmth	8(67)	3(25)	1(8)	61(52)	50(42)	7(6)
Awareness of Feelings	9(75)	3(25)	0(0)	78(66)	36(31)	4(3)
Acceptance of Feelings	8(67)	3(25)	1(8)	56(47)	55(47)	7(6)
* Relationship with Students	10(83)	2(17)	0(0)	81(69)	34(29)	3(3)
* Sense of Fairness	12(100)	0(0)	0(0)	93(79)	24(20)	1(1)
* Performance Expectation	12(100)	0(0)	0(0)	75(64)	43(36)	0(0)
Teaching Style						
* Attention to Students	12(100)	0(0)	0(0)	81(69)	35(30)	2(2)
* Clarity	11(92)	1(8)	0(0)	94(80)	22(19)	2(2)
* Instructional Appropriateness	12(100)	0(0)	0(0)	59(50)	56(59)	3(3)
Checking Students' Work	7(58)	5(42)	0(0)	83(70)	32(27)	3(3)
* Movement and Involvement	12(100)	0(0)	0(0)	97(82)	20(17)	1(1)
* Initiating Student Contact	12(100)	0(0)	0(0)	71(60)	44(37)	3(3)
Classroom Management						
* Efficient Use of Time	10(83)	1(8)	1(8)	89(75)	25(21)	4(3)
Consistency	9(75)	3(25)	0(0)	72(61)	39(33)	7(6)
* Absence of Need for Discipline	10(83)	2(17)	0(0)	71(60)	42(36)	5(4)
Non-Permissiveness	5(42)	6(50)	1(8)	101(86)	14(12)	3(3)
Use of Praise	8(67)	4(33)	0(0)	71(60)	42(36)	5(4)

* identified variables

Table 16

Frequency, Mean, and Percent of Use of Each Intervention from the Intervention Strategy Inventory (ISI) by Teacher Sample

Intervention Strategy Type		Sample					
		Effective Teacher			Validation Study		
		Frequency	Mean	Percent	Frequency	Mean	Percent
	Supportive General	78	6.5	15	635	5.4	12
	Supportive Special Program	61	5.1	12	571	4.8	11
	Humanistic	35	2.9	7	316	2.7	6
	Glasser Principle	106	8.8	20	950	8.1	19
	Use of Reinforcers	49	4.1	9	478	4.1	9
	Redirecting	66	5.5	13	785	6.7	15
Total	Supportive	395	32.9	75	3735	31.7	73
	Modeling	9	75.0	2	81	1.0	2
	Task Engagement Feedback	30	2.5	6	222	1.9	4
	Ignoring	8	.7	2	122	1.0	2
	Reminding	19	1.6	4	189	1.6	4
Total	Neutral	66	5.5	13	614	5.2	12
	Warn	19	1.6	4	183	1.6	4
	Reprimand	22	1.8	4	183	1.6	4
	Mildly Punitive	25	2.1	5	333	2.8	7
	Moderately-Severely Punitive	0	0.0	0	44	0.4	1
Total	Punitive	66	5.5	13	743	6.3	15

Table 17

Mean Frequency and Percent of Each Intervention Type from the ISI by Teacher Sample

	Sample			
	Effective Teacher		Validation Study	
Intervention Strategy Type	Frequency	Percent	Frequency	Percent
Conduct Problem				
Supportive	11.3	70	10.4	65
Neutral	1.6	10	1.4	9
Punitive	3.2	20	3.8	24
Learning Problem				
Supportive	9.7	81	13.2	82
Neutral	1.3	10	1.4	9
Punitive	1.1	9	1.2	7
Personality Problem				
Supportive	12.1	76	8.1	67
Neutral	2.7	17	2.4	20
Punitive	1.3	7	1.3	11
Total				
Supportive	33.0	75	31.7	72
Neutral	5.5	12	5.2	12
Punitive	5.5	13	6.3	14

Attitude toward mainstreaming was assessed using the Mainstreaming Attitude Survey (MAS). The MAS is a 30 item, likert scale with five response options ranging from strongly agree to strongly disagree. The scale has five factors, previously determined through factor-analytical procedures. As reported in Table 18, individual raw factor scores were fairly similar for the two samples of teachers. However, the summative attitude score showed a slight difference indicating a more positive attitude toward mainstreaming for the effective teacher sample.

In order to provide a summary of the results, all of the teaching behaviors considered have been organized by category and reported in a single table. Table 19 provides a variable definition as well as the range (or result) and mean for both the effective teacher sample and the validation study sample. As mentioned earlier, the original study identified 42 teaching behaviors, 33 of which have been included for this phase of the study. Summarizing the results from the series of tables presented, 18 of the 33 teaching behaviors or variables appear to distinguish the effective teachers from the sample teachers. The identified variables are:

(1) content questions
(2) sustaining feedback (questioning style)
(3) criticism of response

(4) teacher transition time
(5) student transition time
(academic learning time)
(6) easy difficulty level
(7) academic learning time

Table 18

Mean Raw Factor Score
from the Mainstreaming Attitude Survey (MAS)
by Teacher Sample

Factor[a]	Effective Teacher		Validation Study	
	Mean	SD	Mean	SD
Philosophy of Mainstreaming	32.1	4.1	29.4	3.5
Classroom Behavior	20.8	3.5	20.3	4.5
Perceived Ability to Teach	10.8	3.1	11.9	3.2
Classroom Management	12.1	3.8	11.4	2.7
Academic and Social Growth	14.8	3.0	12.3	3.0
Total Score	90.5	17.5	85.3	16.9

[a] All factors are realtive to special needs children

Table 19

Data Summary for the Identified Teaching Behaviors

		Sample			
		Effective Teacher		Validation Study	
Teaching Behavior	Variable Definition	Range or Result	Mean	Range or Result	Mean
	Questioning Style				
Content Questions	% of all questions asked which were specifically related to the content being covered	81- 91%	87%	80-100%	97%
Low-order Questions	% of content questions which were of a low cognitive level	89-100%	97%	75-100%	95%
Correct Student Response	% of content questions answered correctly by students	66- 89%	80%	60- 94%	81%
Positive Feedback	% of student responses which received positive or supportive feedback	77- 98%	86%	48-100%	88%
Sustaining Feedback	% of incorrect responses followed by another clarifying or helping question to the same student	61- 81%	70%	14- 91%	54%
Criticism of Response	% of student responses which were incorrect and criticized	0-1.0%	0.1%	0-0.7%	0.3%

Table 19
(continued)

Academic Learning Time

Teacher Transition Time	% of teacher transition time, i.e., non-instructional time when students are awaiting direction from the teacher	1.3- 4.7%	3.0%	0-26.1%	5.0%
Student Transition Time	% of student transition time, i.e., non-instructional time spent turning in papers, getting books, etc.	2.1- 7.8%	4.7%	0- 9.0%	3.0%
Waiting for Help Time	% of time students were waiting for help from the teacher	0- 1.2%	0.3%	0- 2.0%	0.1%
Off-Task Time	% of time students were inappropriately off-task	3.2-13.7%	9.7%	0-40.2%	9.1%
Easy Difficulty Level	% of student time spent working at an easy difficulty level, i.e., low error rate	81- 100%	91%	50- 100%	80%
Hard Difficulty Level	% of student time spent working at a hard difficulty level, i.e., high error rate	0- 3.2%	0.4%	0- 9.0%	0.2%
Engagement Rate	% of time students were appropriately engaged	73- 94%	85%	54- 100%	88%
Academic Learning Time	Number of minutes allotted to reading/language arts during which students were on-task and working at an appropriate instructional level	73- 122 (minutes)	95	14- 223 (minutes)	90

Table 19
(continued)

Classroom Management

Incidence of Intervention	Number of interventions used per hour	0- 5.7 (per hour)	3.0	0.4-22.9 (per hour)	6.2
Variety of Interventions	% of different intervention types chosen on ISI	79- 93%	83%	50-100%	80%
Punitive Intervention	% of total interventions which were punishing or punitive	0- 8%	5%	0- 33%	9%
Total Punitive Response	% of punitive responses chosen on ISI	5- 16%	13%	2- 48%	15%
Total Supportive Response	% of supportive responses chosen on ISI	66- 86%	75%	41- 95%	73%
Supportive Response to Learning Problem Behaviors	% of supportive responses chosen on learning problem items only on ISI	75-100%	81%	33-100%	79%
Supportive Response to Personality Problem Behaviors	% of supportive responses chosen on personality problem items only on ISI	69- 94%	76%	50-100%	75%
Supportive Response to Low Ability Students	% of supportive responses chosen for low ability student items only on ISI	83-100%	83%	17-100%	61%
Task Engagement Feedback	% of total interventions which were non-punitive comments or actions specifically intended to keep students on-task	33- 75%	47%	0- 92%	37%
Efficient Use of Time	% of teachers who maximize instruction by making optimal use of classroom time ("High" rating on Question #14 on ORS)	10 teachers	83%	89 teachers	75%
Lack of Need for Discipline	% of teachers who spend little time (less than 5%) disciplining students ("High" rating on Question #16 on ORS)	10 teachers	83%	71 teachers	60%

Table 19
(continued)

	Classroom Climate				
Teacher Responsiveness	% of teachers who give much attention to student responses and comments ("High" rating on Question #8 on ORS)	12 teachers	100%	81 teachers	69%
Performance Expectation	% of teachers who show positive expectations for the academic success of their students ("High" rating on Question #7 on ORS)	12 teachers	100%	75 teachers	64%
Teacher Initiation of Student Contact	% of teachers who consistently initiate student contact ("High" rating on Question #13 on ORS)	12 teachers	100%	71 teachers	60%
Relationship with Students	% of teachers whose like for and understanding of students is evident ("High" rating on Question #5 on ORS)	10 teachers	83%	81 teachers	69%
Teacher Fairness	% of teachers who treat all students fairly ("High" rating on Question #6 on ORS)	12 teachers	100%	93 teachers	79%
	Teaching Style				
Teacher Clarity	% of teachers whose communications are understood by students ("High" rating on Question #9 on ORS)	11 teachers	92%	94 teachers	80%
Active Involvement	% of teachers who remain actively involved as students engage in work ("High" rating on Question #12 on ORS)	12 teachers	100%	97 teachers	82%

Table 19
(continued)

Individualization					
Instructional Appropriateness	% of teachers whose instructional program is highly responsive to individual needs of the students ("High" rating on Question #10 on ORS)	12 teachers	100%	59 teachers	50%
Teacher Attitude					
Positive Attitude Toward Mainstreaming	Summative raw score on the MAS	84-113 raw score	91	68-112 raw score	85

(8) incidence of intervention
(9) punitive intervention
(10) supportive response to personality problem behaviors
(classroom management)
(11) supportive response to low ability students
(12) task engagement feedback
(13) lask of need for discipline

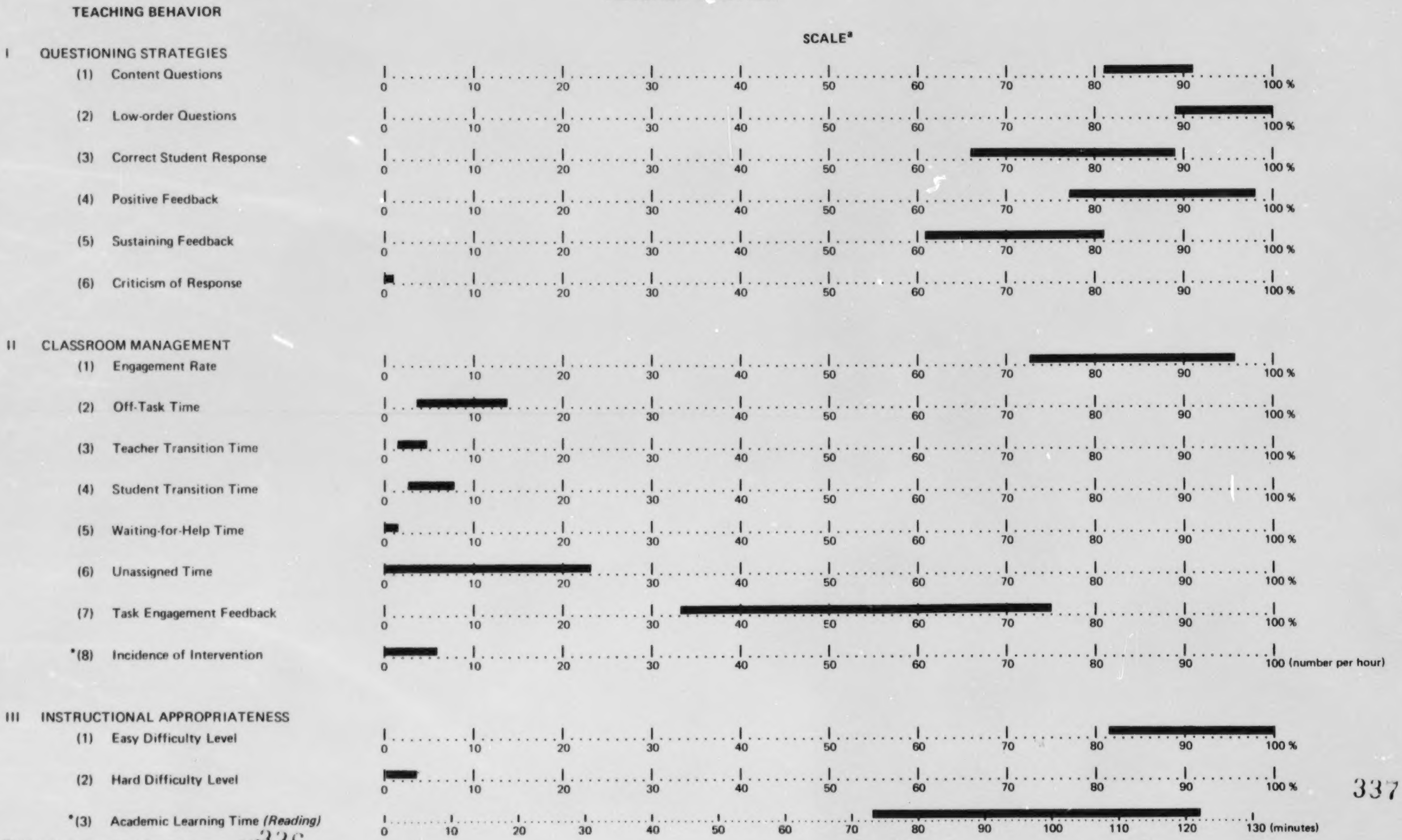
(14) teacher responsiveness
(15) performance expectation
(classroom climate)
(16) initiation of student contact
(17) teacher fairness

(18) instructional appropriateness (individualization)

Teacher Profile Data

From the variables originally identified a teacher profile was developed showing the critical ranges for the effective teachers. This profile was composed of only the 17 variables obtained from direct classroom observation (i.e., from the QP, ALT, and ISR). One variable (Unassigned Time) was not considered in the validation phase, leaving 16 variables on the teacher profile. The profile was developed as a means for displaying a teacher's scores for the purpose of identifying teaching skill areas where the teacher scored out of the desired range. The teacher could then be provided with training geared to the deficit teaching skill areas. A copy of the teacher profile is provided on the page to follow.

TEACHER PROFILE



[a] *All scales in % except those two starred (*)*

The teachers who participated in the validation phase of the study were given completed teacher profiles based on the results of the observations conducted in their classrooms.

Teacher profiles were completed for 116 teachers. The frequency and percent of teachers scoring out of the desired range for each variable on the profile are shown in Table 20. This data revealed that more than half of the teachers' scores (59.5%) on giving sustaining feedback were outside of the critical range. For task engagement feedback and easy difficulty level 32.3% of the teachers' scores were out-of-range. On teacher transition time and academic learning time 19% of the sample teachers had scores out of the desired range. For 32 teachers, or 27.6%, their incidence of intervention exceeded the desired rate. These six variables had previously been identified as differentiating between the effective teachers and the sample teachers, based on mean scores for the two groups. The teacher profile data further substantiates the differences.

Table 21 provides data on the number of individual behaviors on which teachers were out-of-range. The greatest number of variables on which any teacher in the sample scored out of the desired range was seven of a possible 16 variables. Only five teachers in the sample scored within the critical range on all of the variables. The data revealed that 76% of the teachers scored out of the desired range on at least two teaching behaviors. These results indicate that the majority of the teachers sampled would require specific skill training. The teacher profile data also revealed that teachers vary substantially in their need for training suggesting the necessity for systematic assessment of skill proficiency subsequent to any training effort.

Table 20

Frequency and Percent of Teachers Scoring Out-of-Range for Each of the Teacher Profile Variables

Teaching Variable	Frequency	Percent
QUESTIONING STRATEGIES		
Content Questions	0	0.0
Low-order Questions	10	8.6
Correct Student Response	1	0.9
Positive Feedback	11	9.5
Sustaining Feedback	69	59.5
Criticism of Response	4	3.4
CLASSROOM MANAGEMENT		
Engagement Rate	4	3.4
Off-Task Rate	17	14.7
Teacher Transition Time	22	19.0
Student Transition Time	0	0.0
Waiting-for-Help Time	0	0.0
Task Engagement Feedback	38	32.3
Incidence of Intervention	32	27.6
INSTRUCTIONAL APPROPRIATENESS		
Easy Difficulty Level	38	32.3
Hard Difficulty Level	0	0.0
Academic Learning Time	22	19.0

Table 21

Frequency and Percent of Teachers Scoring Out-of-Range on Total Number of Teacher Profile Variables

Number of Variables (n=16)	Frequency (n=116)	Percent
7	1	0.9
6	2	1.7
5	4	3.4
4	16	13.8
3	33	28.4
2	32	27.6
1	23	19.8
0	5	4.3

Relationship of Teacher and Contextual Variables to Student Success Measures

A final level of the analysis was concerned with the relationship of the specific teaching behaviors and other contextual variables to the success of the mainstreamed child. The following 18 performance measures were considered: reading achievement, social status, self-perception of peer acceptance, adaptive behavior (total score) and 11 individual behavioral factors, and engagement rate, off-task rate and academic learning time (ALT). The reading achievement score was a grade equivalent obtained from a standardized reading achievement test. Social status and self-perception scores were from a group-administered sociogram. Overall adaptive behavior and individual behavior scores were from a behavior rating scale completed by the classroom teacher. Engagement and off-task rates and ALT were obtained from classroom observational data.

In order to determine the degree of predictability of each variable, a series of partial correlation and regression analyses were conducted. Given the number of independent variables, it would be expected that by chance alone two variables would be significantly correlated at the .05 level. Initial analyses indicated that for many of the dependent variables correlations were not beyond the chance level. Those variables with at least three significant correlations are reported in Table 22. This partial correlation analysis controlled for grade and considered social status, self-perception and the 12 behavioral variables. The results indicate that variables from the behavior rating scale were more predictable than

Table 22

Significant Correlations of Teaching and Context Variables with Student Variables

Teaching and Context Variables	Student Variable with Correlation Coefficients				
Total Supportive Response	Comprehension (.05)	Classroom Disturbance -(.01)	Inattentive Withdrawn -(.05)	Irrelevant Responsiveness -(.05)	Maladaptive Behavior Score -(.05)
Total Punitive Response	Impatience (.05)	Classroom Disturbance (.05)	Inattentive Withdrawn (.05)	Irrelevant Responsiveness (.05)	Maladaptive Behavior Score (.01)
Off-Task Rate	External Reliance (.05)	Classroom Disturbance (.001)	Disrespect Defiance (.05)	Irrelevant Responsiveness (.05)	Maladaptive Behavior Score (.05)
Criticism of Response	Social Status (.05)	Need Closeness -(.01)	Inattentive Withdrawn (.05)		
Length of Time Mainstreamed	Creative Initiative (.05)	External Blame (.05)	Disrespect Defiance (.05)	Irrelevant Responsiveness (.05)	

the social status variables. The total maladaptive behavior score is a summative score of all of the items pertaining to maladjustment to the classroom setting. Teacher supportive response was negatively correlated with this variable, while punitive response was positively correlated. This data could be interpreted as suggesting that supportive responses tend to limit negative behavior whereas punitive responses promote negative behavior.

Based on the results of the partial correlations, specific dependent variables were selected and a series of regression analyses were run. The selected dependent variables were social status, reading achievement, classroom disturbance, inattentive-withdrawn behavior, engagement and off-task rates and ALT. Grade placement, sex, length of time mainstreamed, hours of services, and pre-reading achievement were controlled.

A series of six regression analyses were conducted considering the following groups of variables:

Analysis 1:	content questions	(CQ)
	low order questions	(LOQ)
	correct student response	(CSR)
	positive feedback	(PF)
Analysis 2:	task engagement feedback	(TEF)
	sustaining feedback	(SF)
	punitive intervention	(PI)
	incidence of intervention	(IOI)

Analysis 3:	variety of interventions	(VI)
	total punitive response	(TPR)
	total supportive response	(TSR)
Analysis 4:	relationship with students	(RWS)
	teacher fairness	(TF)
	performance expectation	(PE)
	teacher responsiveness	(TR)
	teacher clarity	(TC)
	instructional appropriateness	(IA)
	teacher involvement	(TI)
	initiation of student contact	(ISC)
	efficient use of time	(EUT)
	lack of need for discipline	(LND)
Analysis 5:	engagement rate	(ER)
	off-task rate	(OTR)
(Classroom average)	teacher transition time	(TTT)
	student transition time	(STT)
	easy difficulty level	(EDL)
	ALT	(ALT)
Analysis 6:	above six variables for the mainstreamed student	(MS)

Those clusters of variables for which the F-statistic indicated that one or more of the variables was a significant predictor of the dependent variable are reported in Table 23. In some instances, although the variable cluster is significantly predictive, individual F-tests indicate no significance. This is probably indicative of the variables in the cluster being highly correlated with each other.

The results indicate that when pre-reading achievement is controlled, the cluster of intervention variables and the ALT variables (both classroom average and individual mainstreamed student scores) significantly predict end-of-year reading achievement. The cluster of intervention variables also significantly predicts engagement rate and off-task rate for the mainstreamed child. Use of sustaining feedback by the teacher predicts ALT for the mainstreamed child and use of punitive interventions predicts social status. Positive relationship with students predicts engagement and off-task rates for the mainstreamed child. Instructional appropriateness significantly predicts engagement rate and teacher responsiveness predicts ALT for the mainstreamed student.

A second set of regression analyses considered the following nine dependent variables: engagement and off-task rates, easy difficulty level and ALT for the mainstreamed student; and classroom disturbance (CD), need closeness to the teacher (NC), creative initiative (CI), irrelevant responsiveness (IR) and inattentive-withdrawn (IW) behavior. In these analyses grade, sex, length of time mainstreamed, and hours of services were controlled.

Table 23

Significance Levels for Variable Clusters Which
Significantly Predict Student Success Variables
(Pre-Reading Achievement Controlled)

Independent Variable Code	Dependent Variable Code				
	RA	ER (MS)	OTR (MS)	ALT (MS)	SS
TEF	.54	.39	.48	.69	.38
IOI	.87	.80	.80	.54	.37
SF	.79	.39	.80	.03*	.15
PI	.88	.95	.95	.61	.05*
RWS		.01*	.03*	.78	
IA		.008*	.08	.07	
TR		.89	.45	.03*	
ER	.97				
OTR	.65				
TTT	.76				
STT	.66				
EDL	.63				
ALT	.63				
ER(MS)	.79				
OTR (MS)	.61				
TTT (MS)	.98				
STT (MS)	.92				
EDL (MS)	.87				
ALT (MS)	.97				

The significant results are reported in Table 24. When pre-reading achievement is not controlled, some of the results are different from the previous series of analyses. Percentage of content and low-order questions and correct student response significantly predict easy difficulty level for the mainstreamed student. Supportive response by the teacher significantly predicts the mainstreamed student's engagement rate as does lack of need for discipline.

Table 24

Significance Levels for Variable Clusters Which Significantly Predict Student Success Variables (Pre-Reading Achievement Not Controlled)

Independent Variable Code	Dependent Variable Code						
	ER (MS)	ALT (MS)	OTR (MS)	EDL (MS)	CD	IW	CI
TEF	.28	.70	.32				.35
IOI	.75	.87	.78				.24
SF	.59	.10	.76				.02*
PI	.90	.07	.72				.19
LND	.01*	.04*	.03*				
IA	.08*	.01*	.30				
CQ		.71		.04*			
LOQ		.15		.01*			
CSR		.07		.03*			
PF		.14		.57			
VI	.87				.93	.92	
TPR	.10				.93	.63	
TSR	.03*				.36	.61	

RECOMMENDATIONS FOR TEACHER TRAINING

In conclusion, of the 18 variables identified based on mean comparisons of the effective teacher sample with the validation study sample, 12 have been further substantiated by significantly predicting one or more measures of success for the mainstreamed child. The 12 variables are as follows:

(1) use of content-related questions
(2) giving sustaining feedback
(3) teacher transition time (low rate)
(4) student transition time (low rate)
(5) easy difficulty level of tasks
(6) academic learning time
(7) incidence of intervention (low rate)
(8) punitive intervention (low rate)
(9) giving task engagement feedback
(10) need for discipline (low rate)
(11) teacher responsiveness to students
(12) instructional appropriateness

In terms of recommendations for teacher training, it is recommended that teachers be trained to use sustaining and task engagement feedback, provide instructional materials and tasks which students appropriately engage in at a low error rate, ask questions during instruction which are specifically related to the content being covered and be responsive to student responses and comments.

Furthermore, it is recommended that teachers working with mainstreamed students provide a classroom environment in which there is little either teacher or student transition (non-instructional) time, need for discipline as well as actual intervention rate is low, and use of punitive interventions is minimal.

Appendix

I.E.P. DATA RECORD SHEET

TEACHER QUESTIONNAIRE

SOCIOGRAM

DATA SHEET

Student I.D. ______

I.E.P. Data Record Sheet

1. Date of birth ______

2. Age as of September, 1980 ______

3. Handicapping condition (or diagnosis) ______

4. Present levels of educational performance: (Record data available.)

Area	Name of Test	Date Given	Raw Score	Grade Equiv. Score	Stanine Score
Reading Vocabulary					
Reading Comprehension					
Spelling					
Language					
Math Computation					
Math Concepts					

5. Date of initial I.E.P. ______

6. Number of years, (and months, if portion of year) as of June, 1981, this student has been mainstreamed (i.e., Sept. 1980-June 1981 = 1 yr; February 1979 - June 1980 = 1 yr. and 5 months).

_____ Year(s) _____ Month(s)

If the student's placement is primarily in a regular classroom, answer Questions #7 and #8 (page 2).

If the student's primary placement is in a special education class, answer Question #9 (page 3).

7. All direct services are provided by the regular classroom teacher (i.e., the student does not see a specialist regularly during the school day).

_____ Yes _____ No

8. Supportive services provided: (Provide information specified).

Service	Check if Provided	No. hrs./ day	No. days/ week	No. months Services Provided*
Counseling				
Occupational therapy				
Physical therapy				
Speech training				
Language training				
Hearing training				
Resource room (i.e., sees L.D. or N.I. specialist)				
Other (List): ____________ ______________________				

---

* Beginning with Sept., 1980, give number of months services provided for this school year. If services were provided for the whole school year (Sept-June) record 10 months; Oct. -June records 9 months, etc.

If the student's primary placement is in a special education class, answer Question #9.

9. Record service provider by subject.

Subject	Check (✓) if provided in Special Class	If provided in regular class record:	
		No. hrs/day	No. days/wk.
Reading			
Language Arts			
Spelling			
Math			
Social Studies			
Science			
Physical Education			
Music			
Art			
Homeroom			
Other (List): ____________ ____________________			

Name ____________________

School ____________________

Mainstreaming Project Teacher Questionnaire

Please give the following information in the space provided.

Section I: Background Information

A. Classroom Data

1. Current grade level ____________________
2. Number of students on your class register ____________________
3. Number of students with an I.E.P. (i.e., resource, speech/hearing, etc.) on your class register ____________________
4. Number of additional students mainstreamed from a special education class not included on your class register ____________________
5. Number of reading groups in your class ____________________
6. Number of actual minutes spent in Reading/ Language Arts Block daily. Do not include break or recess time. (Write in number of minutes each day.)

Mon.	Tues.	Wed.	Thur.	Fri.
________	________	________	________	________

B. Teacher Background

7. Total years teaching experience ____________________
8. Highest degree earned (including credits above) ____________________
9. Number of years you have had mainstreamed students in your classroom ____________________
10. Coursework in special education or mainstreaming:
    a. Number of college courses ____________________
    b. Number of inservice courses:
        (1) State-wide (i.e., Dept. of Educ. or grant sponsored) ____________________
        (2) Local (i.e., sponsored by your district or school) ____________________

Section II: Mainstreamed Student Information

Please answer the following questions for ________________________________ who was selected to be observed.

1. How much of the total daily Reading/Language Arts time given in Question #6 above, does this student spend in your classroom? (Write in number of minutes per day.)

Mon.	Tues.	Wed.	Thur.	Fri.
______	______	______	______	______

Please check:

2. Did you participate in the I.E.P. meetings for this student? Yes ____ No ____
3. Have you seen the written I.E.P. for this student? Yes ____ No ____
4. Did you receive specific recommendations for providing instruction for this student? Yes ____ No ____

Section III: Teacher Opinion

A. Services Provided

Please circle your response to the following items.

1. The level of administrative support relative to special needs students has been:	very low	low	average	high	very high
2. The availability of additional support services for special needs students (i.e., resource room, remedial reading, counseling, appropriate instructional materials, etc.) has been:	very low	low	average	high	very high
3. My success in dealing with special needs students in the regular classroom has been:	very low	low	average	high	very high

B. Teacher Opinions Relative to Mainstreaming

Please circle the letter(s) that best describes your agreement or disagreement with the following statements. There are no correct answers; the best answers are those that honestly reflect your feelings.

Scale: SA = Strongly Agree A = Agree U = Undecided

D = Disagree SD = Strongly Disagree

1. Many of the things teachers do with regular students in a classroom are appropriate for special needs students. SA A U D SD
2. The needs of handicapped students can be best served through special, separate classes. SA A U D SD
3. A special needs child's classroom behavior generally requires more patience from the teacher than does the behavior of a normal child. SA A U D SD
4. The challenge of being in a regular classroom will promote the academic growth of the special needs child. SA A U D SD
5. The extra attention special needs students require will be to the detriment of the other students. SA A U D SD
6. Mainstreaming offers mixed group interaction which will foster understanding and acceptance of differences. SA A U D SD
7. It is difficult to maintain order in a regular classroom that contains a special needs child. SA A U D SD
8. Regular teachers possess a great deal of the expertise necessary to work with special needs students. SA A U D SD
9. The behavior of special needs students will set a bad example for the other students. SA A U D SD
10. Isolation in a special class has a negative effect on the social and emotional development of a special needs student. SA A U D SD
11. The special needs child will probably develop academic skills more rapidly in a special classroom than in a regular classroom. SA A U D SD
12. Most special needs children do not make an adequate attempt to complete their assignments. SA A U D SD
13. Integration of special needs children will require significant changes in regular classroom procedures. SA A U D SD
14. Most special needs children are well-behaved in the classroom. SA A U D SD

15. The contact regular class students have with mainstreamed students may be harmful. SA A U D SD

16. Regular classroom teachers have sufficient training to teach children with special needs. SA A U D SD

17. Special needs students will monopolize the teacher's time. SA A U D SD

18. Mainstreaming the special needs child will promote his/her social independence. SA A U D SD

19. It is likely that a special needs child will exhibit behavior problems in a regular classroom setting. SA A U D SD

20. Diagnostic-prescriptive teaching is better done by resource-room or special teachers than by regular classroom teachers. SA A U D SD

21. The integration of special needs students can be beneficial for regular students. SA A U D SD

22. Special needs children need to be told exactly what to do and how to do it. SA A U D SD

23. Mainstreaming is likely to have a negative effect on the emotional development of the special needs child. SA A U D SD

24. Lack of application by the special needs child is one of the most frequent causes for failure. SA A U D SD

25. The special needs child will be socially isolated by regular classroom students. SA A U D SD

26. Parents of a special needs child present no greater problem for a classroom teacher than those of a normal child. SA A U D SD

27. Integration of special needs children will necessitate extensive retraining of regular teachers. SA A U D SD

28. Special needs students should be given every opportunity to function in the regular classroom setting, where possible. SA A U D SD

29. Special needs children are likely to create confusion in the regular classroom. SA A U D SD

30. The presence of special needs students will promote acceptance of differences on the part of regular students. SA A U D SD

Administration of the Sociogram

General Directions

Please administer the sociogram at your earliest convenience, but at least by the end of May. It would be preferable to give the sociogram on a day when there are not a lot of students absent. It also necessary for your selected mainstreamed student to be present.

During the administration, it is important to discourage any comments which might influence student choices and to keep students from looking at their classmates sheets.

We anticipate that some students in grades 1&2 may have trouble with the format and suggest that you administer it in small groups. For example, you might give it while the children are in their reading groups. If you have any questions or concerns please feel free to call Dr. Barbara Larrivee at 274-4900 ext. 238. If you would like one of the project staff to help in the administration you can call the secretary, Carol Baccaire at 456-8024 to make arrangements.

You will need a copy of your class roster to read your students names from and to return with the completed forms. Remember to add the names of any students who may not be on your roster, but spend any time in your class (i.e., homeroom, music, social studies, etc.). If any of your students are new to the class (after February 1) please make a note on the roster. If you have more than 26 students use the back side of the form.

Grades 3 - 6

Directions for Administration

Give each student a copy of the checklist and say:

We like class members in different ways. This checklist is a way of telling how close a friendship you would like to have with other students in the class. For each person in the class, you will select the statement which most nearly describes your feelings about the person and put an "X" in the box beside the statement.

The numbers 1 - 26 go across the top of the page. For each number I will read the name of a person in the class. As I read a name, you will select the sentence which tells how much you would like to spend time with them. You can only mark one box for each person.

Now, let's look at the five sentences. The first one says:

WOULD LIKE TO INVITE TO MY HOME.

Number 2 says:

WOULD LIKE TO SPEND TIME WITH ON THE PLAYGROUND.

The third sentence says:

WOULD LIKE TO SPEND SOME TIME WITH ONCE IN A WHILE.

Number 4 says:

WOULD LIKE TO BE MORE LIKE OTHER STUDENTS.

The last sentence says:

WOULD LIKE TO LEAVE ME ALONE.

When your own name is read, mark the sentence which describes how you think most of your classmates feel about you and will mark for you. No one in your class will see your paper.

We're ready to begin now. The first student will be ____________________ ______________________________ (use first name on your class roster). Mark an "X" for only one sentence. The sentences again are:

Number 1: WOULD LIKE TO INVITE TO MY HOME.
Number 2: WOULD LIKE TO SPEND TIME WITH ON THE PLAYGROUND.
Number 3: WOULD LIKE TO SPEND SOME TIME WITH ONCE IN A WHILE.
Number 4: WOULD LIKE TO BE MORE LIKE OTHER STUDENTS.
Number 5: WOULD LIKE TO LEAVE ME ALONE.

Now, move to space #2. The second student is ___________________

_____________________(use second name on your class roster).

Mark one sentence with an "X".

Scan the classroom to see if anyone is having difficulty. Continue to read names from your class roster, repeating the 5 sentences occasionally as necessary. Have your students check periodically (i.e., about every 5th to 8th name) to make sure that they have only marked one "X" in each column.

Collection & Return

Collect all forms and put in the envelope provided along with the classroom roster you used for administration. We will need to identify students who have an IEP for coding the data. The completed forms will be picked up by project staff by Thursday, May 28.

Project Update

We are working on coding all the data from the classroom observations and are hoping to have the results for you within a few weeks. You will hear from us soon.

Directions for Administration

Give each student a copy of the checklist and a place keeper. After the materials have been passed out, say:

> We like class members in different ways. This activity is a way of telling how close a friendship you would like to have with other boys and girls in our class. For each person in the class, you are going to pick the sentence which tells how you feel about the person. Now, let's all look at the **five** sentences on your paper. I will read them to you.
>
> Put your finger on the first sentence. It says:
>
> WOULD LIKE TO INVITE TO MY HOME.
>
> Now, move your finger down to number 2. It says:
>
> WOULD LIKE TO SPEND TIME WITH ON THE PLAYGROUND.
>
> Put your finger on number 3. This sentence says:
>
> WOULD LIKE TO SPEND SOME TIME WITH ONCE IN A WHILE.
>
> Put your finger on number 4. It says:
>
> WOULD LIKE TO BE MORE LIKE OTHER STUDENTS.
>
> Look at number 5. This is the last sentence. It says:
>
> WOULD LIKE TO LEAVE ME ALONE.
>
> Now, look at the board and we will go over each of the five choices.

Review each of the statements providing any further explanation which you feel will help your children understand the five different choices. Then write on the board the following "key" words for the children to refer to.

1. Home
2. Playground
3. Sometimes
4. Be more like others
5. Leave alone

When everyone understands the five choices continue with the following directions:

> Now, we are ready to start. Look at the numbers 1 – 26 across the top of the page. For each number I am going to read the name of a person in the class. As I read a name, you will pick the sentence which tells how much you would like to spend time with them. You can only pick one sentence for each person. You will put an "X" in the box beside the one you pick.
>
> When your own name is read, mark the sentence which tells how you think most of the boys and girls feel about you and will mark for you. No one in your class will see your paper.
>
> Let's put our marker on the paper so that only the space marked #1 is showing. (Demonstrate to the children how the marker should be on the page and check to see that everyone understands.) The first student will be ______________________________ (use first name on your class roster.) Mark an "X" for only one sentence. I will go over the sentences again.
>
> Number 1: INVITE TO MY HOME.
> Number 2: SPEND TIME WITH ON THE PLAYGROUND.
> Number 3: SPEND SOME TIME WITH ONCE IN A WHILE.
> Number 4: BE MORE LIKE OTHER STUDENTS.
> Number 5: LEAVE ME ALONE.
>
> Now, let's move our marker to space #2. The second student is ______________________________ (use second name on class roster).
>
> Mark one sentence with an "X".
>
> } repeat 5 sentences

Scan the classroom to make sure that everyone understands. Continue to read names from your class roster, repeating the 5 sentences each time or the "key" words from the board.

Collection & Return

Collect all forms and put in the envelope provided along with the classroom roster you used for administration. We will need to identify students who have an IEP for coding the data. The completed forms will be picked up by project staff by Thursday, May 28.

Project Update

We are working on coding all the data from the classroom observations and are hoping to have the results for you within a few weeks. You will hear from us soon.

Name ______________________________

School ________________________ Grade __________ Date ____________

1. Would like to invite to my home															
2. Would like to spend time with on the playground.															
3. Would like to spend some time with once in a while.															
4. Would like to be more like other students.															
5. Would like to leave me alone.															

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Name ______________________ Grade ________ School ______________________________

I. Please write in times that you have Reading/Language Arts for each day of the week.

Monday	Tuesday	Wednesday	Thursday	Friday

II. List mainstreamed students (i.e., students who have an I.E.P. and spend any time in your classroom)

	Check Areas Mainstreamed For				Check Special Services Provided			
Name	Entire Day	Language Arts	Math	Other (Specify)	Resource Room	Remedial Reading	Speech & Language	Other (Specify)
1.								
2.								
3.								
4.								

III. For comparison purposes, we will also be observing a sample of regular students in addition to mainstreamed students. We would like to observe three students, preferably from different reading groups. Please select from your rosters the third name in alphabetical order for each group and list below:

Highest Ability Group ______________________________

Middle Group(s) ______________________________

Use these lines if more than three groups ______________________________
____

Lowest Ability Group ______________________________